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To. 2321.—Vol. L.

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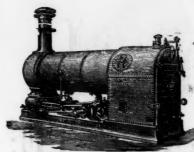
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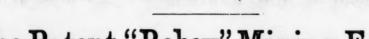
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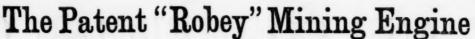
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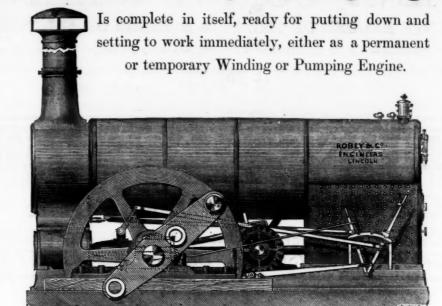


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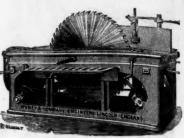


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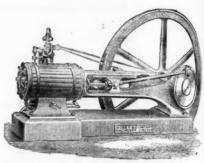


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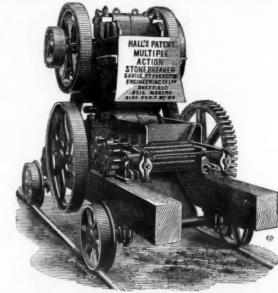
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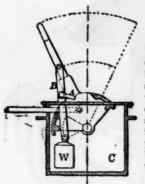
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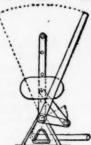
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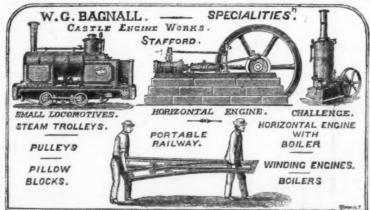
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64, CORNHILL, LONDON.
WILLIAM J. VIAN, Secretary.

### Original Correspondence.

THE COLOURING OF THE GEOLOGICAL MAP OF THE SOUTH-WEST OF IRELAND.

SOUTH-WEST OF IRELAND.

SIE,—Much injury has been done to mining in the counties of Cork and Kerry by the dogmatic and incorrect marking of the district in the Geological Map of the South of Ireland, effected during trict in the Geological Map of the Director of the Geological the period that the late Prof. Jukes was the Director of the Geological Structure of the Geological Structure of the South of 1839, in his remarks on the geological structure of the South of Ireland, expressed an opinion "that eventually the greater part, if not the whole, of the schistose rocks of the counties of Cork and Kerry would prove to be Silurian;" in opposition also to Mr. C. W. Hamilton and Mr. Thomas Weaver in 1838; and in 1856-7 to Prof. Haughton of Trinity College, he persisted, in his position as Director of the Geological Survey, in having the maps marked as Old and New Red Sandstone.

In 1878 Professor Ramsay, the Director-General of the Geological Survey, granted permission to Prof. Hull, the Director of the Geological Survey of Ireland, to re-examine the sections in the counties of Cork and Kerry; and in company with Mr. O'Kelly, the senior geological Mr. McHenry. the assistant geological by model and produced the produced to the senior geological structure.

Survey, granted permission to Flor. Ann. the Director of the Geological Survey of Ireland, to re-examine the sections in the counties of Cork and Kerry; and in company with Mr. O'Kelly, the senior geologist, and Mr. McHenry, the assistant geologist, he made a tour of the district in September, 1878, and in a paper read before the Geologial Society on April 9, 1879, Prof. Hull exhaustively went into the whole question, and put forward his conclusions, proving that the great series of green and purple grits, conglomerates, and slates which rise into the highest elevations in the South-West of Ireland are of Upper Silurian age—the conclusion which the late Sir R. Griffith, the late Mr. John Kelly, and other geologists of eminence had arrived at. In the discussion which followed, Prof. Ramsay stated that he regarded the arguments of Prof. Hull as nearly convincing; but the questions which those concerned in mining in those counties are most interested in are what steps will now be taken to rectify the great injury which has already been done? and will two such authorities as Professors Ramsay and Hull, the heads of the Geological Department, persist in issuing maps which they believe to be incorrectly marked?

marked?
One of our greatest authorities, a man whose name is familiar to all connected with mining, in 1877 was requested to report on some properties in the County Cork, and among other papers supplied to him was the coloured geological map of the district. Crossing from Milford to Cork he looked at the map, and when he saw the formation of the district he assured me that if it had been possible he would have retraced his steps to London, considering his coming over a mere waste of time and money. On going over the ground he expressed his astonishment how such a mistake could have occurred. In the district in which I reside we have ground which Professor

#### MINING IN IRELAND-No. VI. CONVERSATION BETWEEN A FATHER AND SON.

FATHER. - We will vary our conversation this time, John, and speak of lead and copper mining as well as coal, always bringing Dr. Kane's work to our aid

on.—The more I hear of the mineral resources of Ireland the

FAHER.—There is no doubt but mining in Ireland will pay well where good selections are made, sufficient working capital subscribed, rations conducted after the manner suggested by sound prac

and operations conducted after the mainlest suggested by sound plantical and scientific knowledge.

Sox.—Then you would not recommend every place where indications appear to be worked, and you consider mining experts should

nonact the operations.

FATHER.—The very soul of true mining is, first, to make a go selection, and after work it in a proper manner. In the lead and copper mines of Ireland especially there are two distinct classes of lodes or veins which bear the same relation to each other that the tributary does to the river.

Sox.—I think I understand you, father, the one class of lodes may

be regarded as merely feeders to the champion or main lodes, and you would disregard anything but main lodes, which are the great receptacles of the mineral treasures.

FATHER.-Precisely so, John. SON.—The Mining Company of Ireland have declared a dividend for the past half-year, father.

FATHER.—I saw the account of the meeting in the Mining Journal,

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and I have no doubt they will do real well this coming half-year, as the times are so much more in their favour. Sox.—There is no doubt but the tide has turned, and I hope it will

continue to flow till prices reach their normal state, which, by the

way, are not far off now.

FATHER.—The rise in the price of metals is no doubt due to the fact that supplies are not equal to the demand, and while such is the case there is no fear of a reaction. I will now introduce lead mining:

"Lead is even more extensively diffused through Ireland than copper, and is found in much greater variety of rocks, so that I shall not encayour to trace the distribution of our lead mines; in any geological. and is found in much greater variety of rocks, so that I shall not endeavour to trace the distribution of our lead mines in any geological point of view, but describe them in the order of their practical importance, first noticing the construction of the ores which they usually contain. That which is pre-eminently called lead ore is the galena or sulphuret of lead. In 100 paints it contains—Lead, 86.6; sulphur, 13.4; its colour is blueish grey, its lustre brilliant metallic; it crystallises in cubes, and when broken generally forms cubical fragments, but its structure varies very much. The carbonate of lead or white lead ore is occasionally found in quantity, but many mines do not contain it at all; it forms white crystals or masses which consist of—Lead, 77.6; oxygen, 6.0; carbonic acid, 16.4—100. The sulphate of lead is like the carbonate, white and crystalline, but is distinguished from it by not dissolving in dilute nitric acid; it contains—Lead, 88.4; oxygen, 5.3; sulphuric acid, 26.3—100. This ore is of still less frequent occurrence than the carbonate; both may be considered as only accidently present, the lead ore for which a mine is worked being always the galena. The granite district of Dublin and Wicklow is intersected by a great number of veins containing ores of lead; they lie along its eastern boundary, and cross in an oblique direction the juncture of the granite with the mica slate. Veins have been worked along this line at Dalkey and Killiney, on Ballycorus, at Fowerscourt, Djouce, Lough Bray, Lough Dan, Glenasane, Glendalough, Glenmalur, and Shillelagh. Of these many have been found ultimately unproductive, and the only portions of this district which it is necessary to describe in detail are those of Glendalough, Glenmalur, and Ballycorus. The mountains which enclose the lake and ruins of the Seven Churches consist of granite, through which runs numerous veins of quartz, associated with which are found the ores of lead, and in some instances traces of copper; their general distribution is as deavour to trace the distribution of our lead mines in any geological numerous veins of quartz, associated with which are found the one of lead, and in some instances traces of copper; their general distribution is as follows:—At the head of Glenasane, a little above the junction of the granite and mica slate, a vein of quartz, 6 ft. wide, with blende, galena, and some copper pyrites, passes nearly from east to west, and were it continuous would join the vein of Luganure. The latter, the most important in the district, runs altogether in granite; it crosses the mountain boundary, and has been accurately The latter, the most important in the district, runs altogether in granite; it crosses the mountain boundary, and has been accurately traced through a course of 900 fms., its ascertained depth being 180 fms.; this vein is usually 5 ft. wide, but in one place it expands to 12 ft.; the principal veinstone is quartz. The granite in contact with the lower surface of the vein is generally soft and decomposed to adepth of from 1 to 3 ft.; this voin yields, according to Mr. Weaver, in some portions of its course from 3 to 4½ tons of galena per cubic fathom, which is found either in layers parallel to the walls or in dissimilated masses. White lead ore is not uncommon. There are also found sulpharet of zine, copper pyrites, and phosphate of lead; the graduee of this vein usually yields 70 per cent. of metallic lead; a few fathons west of this is another vein in the granite; it is 3 ft. at least of the standard part of the stand

Glendalough vein ranges east and west, crossing the glen obliquely; its course is down the southern flank of Comaderry, and it reappears bigh on the mountain of the opposite side south of the waterfall; its aline has been traced for about 1 mile, and appears to range far into the granife or the western side, but not to penetrate much into the mica slate; its width varies from 5 to 7 fms.; the great mass of it is quartz, and contains numerous mimerals, principally galena, with copper pyrites, sparry iron, and emblate of barytes. The lead ore of this vein produces 70 per cent., and the copper ore gave from 16 to 15 per cent. of metal. In the waterfall find ravine at the head of Glendalough are smaller veins, in which lead and copper ore have been found, but on which no workings have been feerived on. On the Luganure vein and on some smaller veins discovered on both sides of Glenasane, and which are probably onlyers from it, a nithber of shafts have been sunk and very extensive workings made. The old Luganure Mine, as well as the Hero Mine, have ceased to yield any produce, but the mine of Ripplagh on the east and one on the western side of the glen, lately opened at the base of Luganure mountain, are now actively worked by the Mining Company of Ireland, and yield a very fair quantity of ore. They are termed the Luganure Mines; the state of activity of their operations and their amount of produce are shown by the quantity of dressed ore obtained, which was in 1842, 675 tons; 1843, 5474 tons."

Son.—How is if, father, that mining in Ireland received so much more attention 35 years ago than at present?

FATHER.—The discoveries of minefals in Spain and other foreign countries. We are pre-eminently an enterprising people, and never grudge what money is spent abroad. I will now say aword on copper mining in Kerry and Tipperary about the time you name as the active a productive shall be a subject of the same company and situated close by. A good deal has been done in Kerry mining ingo the target of the same company and was 5 ft. wide, and was worked at the depth of 36 fms. on the front shaft, and about 20 by another sunk some distance to the east; the ore was copper pyrites, mixed with much fron pyrites. This mine was worked with great profit from the year 1749 to 1754, but difficulties arising from the circumstances of the European war caused its abandonment. A curious fact in the history of this mine deserves attention. There was found in great profusion a mineral of a granulated metallic appearance as hard as stone; its colour on the surface dark blue, tending to a beautiful pink. It was not copper ore; it was thrown away as rubbish; nobody knew what it was except one workman, who recognised it to be cobalt ore (arseniuret of cobalt), a mineral of great value, from which the beautiful blue glass and small blue is made. This man managed to get away upwards of 20 tons of it as rubbish. Long afterwards a more candid miner, who visited the works and examined some specimens of it, told the proprietor its value, but the deposit of it had been worked out in order to explore for copper; the produce had been thrown away as useless, visited the works and examined some specimens of it, told the proprietor its value, but the deposit of it had been worked out in order to explore for copper; the produce had been thrown away as useless, and it only remained for the mineowner to ruminate on the fortune he might have made if he had possessed a proper knowledge of his business. Ross Island, in the great lake at Killarney, consists of limestone. The metallic lode which passes through it is parallel to that of Mucruss; it dips under the lake at an angle of 30°, which circumstance ultimately led to the abondonment of the mine, for the ore being disseminated through a large quantity of rock the excavations were necessarily large, and the pursuit of the richer vein was pushed so near the surface that the water of the lake broke in in such profusion as to render the effective drainage impracticable. The quantity of rock brought up with the ore was another source of loss, as the cost of dressing was thereby rendered very heavy. The quantity of ore raised whilst this mine was at work averaged 200 tons per month; it was, however, very rich; the poorest sold for 14l. per ton, and the richest for 40l., the average being about 20l. The total value of the ore raised in four years and sold at Swansea was 80,000l., and the number of hands employed was about 500. In order to drain these mines a steam-engine was put up, and that an idea may be formed of how carelessly matters were managed at that time it may be here mentioned that whilst every square mile of the vicinity furnished abundance of peat for the trouble of cutting it the steam-engine was supplied with coal from England at two guineas a ton. The range of mountains which occupies the north of Tipperary and forms the gorge of Killaloe have been found to contain several veins of lead and copper; of these some are now worked; chers have been abandoned after trials which were not finally satisfactory. These mountains consist of clay-slate, finged in most places by the old red and by the yellow sandstones, but phuret and carbonate of lead, sulphuret and carbonate of copper, and sulphuret of zinc. Lead was extracted from this mass, and the lead so obtained was unusually rich in silver, and gave to the vicinity the name it at present bears."

SON.—Where are the Holyford Copper Mines, father? I have heard

Son.—Where are the notytord copper sines, father? I have heard they were very rich.

FATHER.—They are situated in the clay-slate tract south of the silver mines, and produced very rich ore; there are also lodes of great promise in the same district that have never been worked. I have no time no notice coal mining now, John, but propose saying a little

#### CHEAP SHARES IN PROSPEROUS IRON COMPANIES.

SIR,—It may interest your readers to know something about the future prospects of some of the best ironworks. These, and information connected with them, are not often put before the eyes of the general public, because they are generally firmly held, and the shares of a higher value than the majority of mining shares. The depression is now over, and we may safely reckon upon four years prosperity. The writer, however, is of the opinion of the late letter to the Times—that as such very large additions were annually being made to the railways and machinery of the world, that renewals would probably be sufficient to insure prosperity to the old and sound iron companies at nearly all future times

In buying an iron company's share the purchaser should consider the number of shares which divide the profits. Whether the company is solely iron, or iron and coal, as coal has not yet participated to such a great extent in the revival of business. Whether the company owns a great extencin the revival or business. Whether the company owns its own ironstone mines, or has to purchase its stone at fancy prices; whether past dividends give hopes of good things for the future, &c.; whether the present price is the highest, or leaves room for a substantial rise when the public become aware of what is known to the few. Therefore, to enable your readers to judge for themselves, I give you the names and position of some of the busiest companies and will select an example. I could not conveniently name what should be avoided, so do not mention them,

Bitean from Orr, 6per cent prof. There are about 1800 of these M. shures. They take dividend in precedence to Set 000 common

stock, and participate with ordinary stock when more than 6 per cent, is earned. The dividends have always been been promptly paid, and as 25 per cent. Is likely to be earned this year on the common stock we think they are worth anything up to 10th premium—the present price being a small discount.

PARKGATE IRONWORKS COMPANY (Limited).—The great attraction than these largers at the company has its continuous than the company has its continuous con

price being a small uscount.

PARKGATE IRONWORKS COMPANY (Limited).—The great attraction about these shares is that although the company has its own mines, coal adjacent, and large freehold property, there are only 3000 shares. Consequently, when there are large profits earned, they are not dribbled out in 44,000 portions, as in Bolckow, Vaughaff, and Co., or 19,450 in Staveley, and 20.865 as in Knowles and Sons. Before the depression, when coal was at famine prices, Farkgate paid 251, per share, and it is anticipated that as the six blass furnaces are now all at work (consuming some 300 or 400 tons of cheap cost 23l. per share, and it is anticipated that as the six blast furnaces are now all at work (consuming some 300 or 400 tons of cheap coal per week), and the plate mills, &c., constantly at work, there will be a near approach to the good things of before the depression. Another advantage Parkgate has in having its own ironstone mines. The price of the shares is 12l. 10s. less than Staveley A shares of Bolckow Vaughans. I shink that they should be that amount higher, considering what a large property Parkgate is, and that it is divided into only 3000 shares. The public buy, however, without weighing the above-mentioned matters in their minds; but I predict good dividends and a 20l. rise in value to these shares.

VERBUM SAP.

#### THE ROYAL SCHOOL OF MINES.

Sin,—In the Times of the 2nd inst. appeared an article on "The Royal School of Mines." This article invites attention, as it bears the mark of being a communication from the South Kensington authorities in justification of the changes now in progress respecting the School. Perhaps you will permit an old student of the School of Mines to offer the following remarks upon it.

The main contention of the writer of the article is that it was really intended to accommon the base of the School that it was really

The main contention of the writer of the article is that it was really intended at an early period in the history of the School that it should (as far as possible) be an institution "embracing the whole fisid of practical science." A quotation is given from a Treasury minute of 1853 to show the advantages of a cosmopolitan school of science "of the highest class, capable of affording the best instruction and the most perfect training, which can alone be hoped for from an institution which has the command of the most eminent and distinguished talent." The writer of the article adds that "it must be presumed that the future of the school will be determined by the Treasury minute."

talent." The writer of the article agus that "It must be presumed that the future of the school will be determined by the Treasury minute."

Well, Sir, this appears to considerably narrow the question, for it is a virtual admission that the School of Mines, as such, is to be absorbed in a general science school and the training of teachers, which objects are "at least as appropriate to a Government school as the providing for the development of one of the richest of commercial interests in the country." There can hardly be a difference of opinion as to what is meant by this language; it remains to be seen whether the mining and metallurgical interests (upon whose representations the School was admittedly founded) will quietly acquiesce.

Let a general science school flourish by all means, but there is, surely, room for the School of Mines as well. The absorption of the one in the other may save a few hundred pounds a year, but the saving is trivial compared with the drawbacks. I should like to mention one or two from the student's point of view.

The addition of numerous science teachers greatly enlarges the number of students attending the lecture classes. In a large class the personal contact of the teacher and the students cannot be maintained as in a small one; hence one most important element for successful teaching is lost. With a small class the lecturer generally stays after each lecture to converse with the students and answer their questions (ord this is percent leave the recovery of the teacher and the students and answer their questions (ord this is percent leave the recovery of the teacher and the students and answer their questions (ord this is percent leave the recovery of the teacher and the students and answer their questions (ord this is percent leave the recovery of the teacher and the students and answer their questions (ord this is percent leave the recovery of the teacher and the students and answer their questions (ord this is percent leave the recovery of the success of the recovery of t

cessful teaching is lost. With a small class the lecturer generally stays after each lecture to converse with the students and answer their questions (and this is notably the case as regards the teaching at Jermyn-street), but with a large class this becomes impracticable (at all events, most of the lecturers at South Kensirgton appear to think it so). Moreover, the writer of the article at over referred to says, with much trath, that laboratory work is "the essence of modern scientific teaching." But he would hardly assert that the gentlemen who do the actual teaching in the chemical laboratories (which are the most important) at South Kensington are men of special experience or ability. Neither in the lecture classes nor in the laboratories at South Kensington is the high standard of teaching, contemplated by the Treasury minute, practically approached. And the more.cosmopolitan the school becomes, and the greater the number of its students, the more difficult will it be to come up to that standard. In 1874 the Science and Art Department issued a notice that "the laboratory accommodation is limited," and that students joining the

laboratory accommodation is limited," and that students joining the School "do so at their own risk," and subject to any further regular-tions "with regard to the amount of laboratory accommodation at the disposal of the students of the Royal School of Mines." The writer of the article says that there is "ample space" in the Science Schools, South Kensington. Then, why this notice? Unless it be in contemplation to allot the space to science teachers, to the exclusion of School of Mines students.

or school of Mines students.

The science teachers are in competition with the School of Mines students for commercial appointments, such as those of chemical analysts, as there is nothing to prevent their exchanging science-teaching for the generally more lucrative commercial work, although they are educated at the public expense for the special vocation of teaching science. teaching science.

whatever renown the School of Mines has acquired has been chiefly Whatever renown the metallusgical and mining departments. If in connection with the metallurgical and mining departments. If South Kensington is to absorb the School, it has at all events no right to appropriate the renown. The name "School of Mines" should in

fairness be dropped.

AN ASSOCIATE OF THE ROYAL SCHOOL OF MINES.

### EBERHARDT TUNNEL-THE EMMA.

-The discovery of ore in the Eberhardt Tunnel, at a depth of 14,000 feet, is an event of the greatest importance, not merely to the companies concerned in that undertaking but to many others. Had the directors of the Emma Mine, for instance, adopted a similar proche directors of the Emma Mine, for instance, adopted a similar project instead of throwing up the concern as an imposture, the unfortunate shareholders might now be in receipt of good dividends; the character of the rock seems the same (limestone), and it is more than likely that the ore goes down, or rather (speaking by the knowledge this strike gives us) that it has ascended from beneath. The supposition that the metallic particles have been deposited by watery percolation to this great depth is very much less reasonable than that of gaseous exhalation from below. Until now it was a possible solution of rich deposits in limestone, near the surface that currents of the gaseous exhalation from below. Until now it was a possible solution of rich deposits in limestone near the surface that currents of the ocean had carried the heavy particles of metal into the fissures and cavities of the rock which, on the upheaval of the strata, would show themselves in chambers, which of course would be the limit of the ore. Such supposition must now be abandoned if, as seems likely, an almost unbroken vein extends to the mines above the Eberhardt Tunnel. - Jersey, Feb. 9. IGNIGENA

#### THE PROFITS OF GOLD MINING.

SIR,—Two mines, Frontino and Bolivia Gold Mines, situated in ew Granada, in good working order apparently, and Pestarena Gold lines, in Northern Italy, also in good working order, greatly puzzle me. May I hope some of the readers of the Journal will enlighten me. Frontino Mines have a ca ital of 55,000 shares, 2l. each, fully paid, and though the company has only after several years paid a total dividend of 3s. 6d., these shares are now standing at about 2l. 10s. research are constitutional of the standard o me. 31, 10s. per share. Pestarena Gold Mine with an equal capital, but divided into 31. fully paid-up shares, sells its shares for 6s, or 7s, I should much like to know the cause of this wide difference, feeling inclined to invest some money in a gold mine. I notice the Frontino Mines received a little spurt lately, in consequence of a telegram from the mine manager to the effect that a rich lode had been cut. At school I used to study geology, but I do not remember ever hearing of a gold lode. Gold is usually found in old river beds, in gand, and in the interstices of quartz rock; copper and tin are found

At a meeting lately held by Frontino shareholders the expediency at issuing more shares and creating fresh capital appears to have been generally approved of, at an outsider like toy-all naturally wonders what has become of the uplateal countries require, and only state.

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shares are at such a high premium, compared with the Pestarena Gold Mine shares.

Carriage to the Frontino Mines is very difficult and expensive, and South America is more liable to internal commotions than Italy. No doubt the telegram from the mine relative to a gold lode comes at an opportune time, but when I read it I feel inclined to follow the example of a party in the Ingolsby Legends—"He said no word that indicated doubt, but put his thumb unto his nose, and spread his flavor cut."

that indicated doubt, see particles and the frontino Mine circulates through the post to shareholders, but I do not think Pestarena Gold Mine reports are so circulated. In January last the monthly reports gave about 760l. profit from Frontino, and the Journal gave somewhat similar amount from Pestarena. I trust some kind reader may enlighten me.

A READER OF THE MINING JOURNAL.

#### DON PEDRO GOLD MINE.

-This mine never looked so well as at present, and instead of shares being at 30s. they may soon be at as many pounds. I am one of the oldest shareholders; my son having worked for many years at the St. John del Rey had always an idea that it will be as great a prize as its neighbour, the St. John del Rey.

R. FAY.

Stoke Newington, Feb. 12.

#### THE RICHMOND MINING COMPANY.

SIR,—As a shareholder in the above company I shall be glad to find somebody who can account for the present low price of the shares. I say low even through they have so lately risen to 14½. This price for a sound mine paying 7s. 6d. a share quarterly seems to me extraordinary. The company is really in a far stronger position than in 1875, when the shares stood at 16. If recent private advices are to be credited the price should, and will, be nearly double that figure ere this year closes. The policy of the directors in continuing to pay only a 7s. 6d. dividend is, however, a sound one, and contributes not a little to the solidity of the company, keeps down speculation, and thus reduces to a minimum the risks attendant. down speculation, and thus reduces to a minimum the risks attendant upon most mining companies. Shareholders should bear in mind that there is a bonus in prospect for November, but this we shall hear more about perhaps at the next meeting. In the meantime shareholders would do well to hold.

Observer.

#### THE CEDAR CREEK MINING COMPANY.

At the present time, when there is so much excitement in the market for mining shares, I think it will be as well if I caution my brother-shareholders in the Cedar Creek Mining Company against being led away to part with their shares. I have reason to believe that ere long a proposal will be submitted to the shareholders as well as to the debenture-holders in this company to reconstruct, and the terms to be offered to the existing shareholders will be such as to meet with their entire approval, and may lead to the shares in as to meet with their entire approval, and may lead to the shares in the Cedar Creek Company being quoted on 'Change at from 31. to 41

There is no doubt that a valuable property belongs to the com There is no doubt that a valuable property belongs to the company, and the only cause for failure so far has been that capital has been wanting to work it efficiently. If this can be provided, and I believe it can, we shall find the Cedar Creek Company among the best in your Dividend List. The proposal to be submitted to the shareholders is that a new company be formed, that the shareholders be allotted a new share of 3t. each for each old share they now hold on a payment of 5s. per share, and that the debenture holders be paid off by having allotted to them shares of 3t. each as fully paid up. By this means the present mortgage debt will be paid off, and the valuable mine—and it is a valuable mine, as friends in California assure me—will pass into the hands of the shareholders free of all debt or other claims.

The 5s. per share to be asked of the present shareholders will be.

free of all debt or other claims.

The 5s. per share to be asked of the present shareholders will be, I am confident, freely paid by them, and at the same time a working capital of several thousand pounds will be raised. This working capital will be used for carrying on the operations of the mine. It will be more than sufficient for resuming work there, and the balance will form a reserve fund for any contingency, such as failure of water supply, &c., which might arise, and thus the company will be avoided the disagreeable duty in future of raising money or deben. avoided the disagreeable duty in future of raising money on deben-tures. I feel assured that when this plan is laid before a meeting of the shareholders in the Cedar Creek Company it will be unanimously adopted by them, and your readers may anticipate that within the next few months the shares of this company will rise to 31. or 41. each. My advice to brother-shareholders is not to part with their holdings at a nominal price. A SHAREHOLDER.

#### YORKE PENINSULA MINING COMPANY.

SIB,—In reply to your correspondent, "Shareholder," in last week's ournal, I beg to refer him to the report of the last meeting of the Journal, I beg to refer him to the report of the last meeting of the Yorke Peninsula shareholders, when it was authorotatively stated that the overdue interest that had not been dealt with in the accounts amounted to 20,000*l.*, and that this sum was being increased at the enormous rate of about 8000*l.* per year, and since the closing of the accounts, which were made up to June, 1879, the total of accrued interest not dealt with would now amount to about 25,000*l.*; and, in addition to this amount, if he will refer to the balance-sheet last issued he will find that the sum of 14 308*l* 78, 56 of accrued in and, in addition to this amount, if he will refer to the balance-sheet last issued he will find that the sum of 14,3081. 7s. 5d. of accrued interest due on preference shares had been capitalised in 1877, and this latter amount is bearing interest at the rate of 15 per cent. per annum. This is the most effect way of loading a company; making accrued interest increase at the rate of 15 per cent. per annum. I still hold that he must be of a very sanguine temperament who can derive any comfort from a study of the last balance-sheet issued by the directors of this company. I fail to see the slightest prospect for the unfortunate holders of the ordinary shares receiving any return for their capital for many years to come.

X. P.S.—To investors looking after low-priced securities likely to improve in price I would suggest that they give attention to such as the

prove in price I would suggest that they give attention to such as the following:—United Mexican, 201. 2s. 6d. paid, selling at 3\frac{1}{2}; Sierra Buttes, 2l. paid, selling at 1\frac{1}{2}; Javali, 2l. paid, selling at 8s. 6d. These must have their turn in the market, and will soon be saleable at much higher prices. All have good prospects of success, and are

#### THE WORLD'S COPPER STATISTICS.

THE WORLD'S COPPER STATISTICS.

SIR,—It would be of considerable interest to many of your readers if some correspondent would give the cost to the producer of 1 ton of fine copper in Chili, Spain, and Australia. The cost at any one large mine would be sufficient, and if the exact figures cannot be given I should like the nearest approximation obtainable. As to the Chilian ores they are, I think, principally grey ore, containing so much silver as to make the cost of the smelting the copper trifling. The Spanish mines near Cadiz are cupriferous iron pyrit's, and used to be worked on the Norwegian method, the copper after sulphur roasting being precipitated by pig (?) iron. If this be so the cost of the pig (including duty if imported) and the weight of the dry preroasting being precipitated by pig (?) iron. If this be so the cost of the pig (including duty if imported) and the weight of the dry precipitate obtained per ton of pig-iron consumed, are essential. As to Australia, I have not heard from them for 20 years. I suppose the ores have changed in depth to grey ore; they used to be carbonates and oxides, I think, at the Burra. I do not know the principal Australian when the suppose that reach the the heavest. Australian mine at present, but would wish to take the largest producer alone as the type selected.

The Hornsilver Mine (Utah) is likely to be a first rate and perma-

nent thing. I think it is likely to be honestly and well managed so long as it is controlled by the present men (Franklyn, Brown, and Campbell). Prof. Newberry, of Collombia College, the great science school of the States, tells me that he has measured \$20,000 worth of ore in it, and my neighbour Mr. Wood, the discoverer of the Leadville deposit, who has just returned from the West, confirms this fully. But to return to the copper statistics. I may state that my object

But to return to the copper statistics, I may state that my object is to be enabled to judge of the money value of mines in each of the four chief districts—Chili, Spain, Australia, and Lake Superior—as compared with other districts. For this purpose, so as the figures are taken from the principal mine in the district (judging by the quantities). tity of metal it produces), it does not signify if there be smaller mines

in the same district that produced their metal from ores of a different kind. My wish is only to compare the mines that produce, or are capable of producing, very large quantities of metal, and especially those which have proved themselves the most formidable competitors during the reign of the late low prices. I suppose Spain to be the most formidable as that which produces most cheaply. M. Lake Superior, Jan. 28.

#### COPPER MINES AT THE CAPE,

SIR,—It is amusing to read the various letters in recent Journals respecting these mines. The statements of the writers are not free from inaccuracies, but appear to have been made with a knowledge of facts, coupled, though, with a desire for still better results anxiously wished for. To an impartial judgment they would seem to have found their way into the Journal essentially for purposes of share jobbing, trying to raise them in favour of the public. This is the strang on into a fone who is neither. the strong opinion of one who is neither-BEAR NOR BULL. Feb. 12.

#### BORING MACHINERY.

SIR,—I notice in last week's Journal a letter signed "A Small Shareholder," upon the subject of using "Rock Boring Machinery" now the price of ore is good. This, to my mind, is a most sensible remark; and, although it is as clear as the sun that if mines are to pay a dividend to their shareholders it will have to be done by means of machinery, the question is are the bulk of directors and Chairmen doing so? This can, I think, be easily answered by a reference to doing so? This can, it think, be easily answered by a reference to your columns every week, where every now and then will be found complaints from the miners that their wages have been cut down to almost starvation point. This is done by the directors to show that economy has been practised, and in some instances to enable them to eke out a small dividend to their shareholders. I could name some of our best paying mines where the miners earn little more than 15s, per week, and the captains cut down their tributes at their next settings. I believe in the all provert hot "the men who labours settings. I believe in the old proverb that "the man who labours in the vineyard should at least taste of the grapes," and to do this without injury to the shareholders the directors of the different companies should put such machines into the miners' hands as would not only allow them to earn good wages, but to develop the mines in such a manner as will admit of larger dividends being paid to the shareholders.

shareholders.

Too great praise cannot be given to the few chairmen and directors who have introduced boring and other machinery for the purpose of thoroughly opening up their mines, especially in those cases where great opposition has been offered by the mining captains. From the Journal I gather that in every mine of any consequence in Cornwall and Devon rock-boring and other machinery is being used—notably Dolcoath, Wheal Agar, Cook's Kitchen, East Pool, West Basset Wheal Frances Botalleck Deven Great Consels, and the —notably Dolcoath, Wheal Agar, Cook's Kitchen, East Pool, West Basset, Wheal Frances, Botallack, Devon Great Consols, and the Drakewalls Mines; whilst, on the other hand, I can find no mention of machinery being used in the mines of Cardiganshire, and with a few exceptions North Wales, Shropshire, and Scotland. Look, for example, at the Leadhills Mine—what a splendid property it is if only developed in a proper manner. It is high time that playing at mining was put an end to, and shareholders had good dividends paid to them.—Brevon, Feb. 11.

Another Shareholder.

#### CORNISH TIN MINING- No. I.

SIR,—With your kind permission we beg to submit to your readers the following observations on the six dividend tin mines of Cornwall during 1879—the most depressed and disastrous year for mining that ore within the memory of man. In January, 1879, Wheal Peevor sold at 6l. a share, 7l. 11s. paid, or a discount of 4650l., dividends of 2250l. having been declared. Metallic tin at that date was 65l. a ton. At the close of the year metallic tin was 95l. a ton, and the price of shares had advanced to 21l. or (say, an improvement of 45000l. naving been declared. Metallic tin at that date was 65t. a ton. At the close of the year metallic tin was 95t. a ton, and the price of shares had advanced to 21t., or (say) an improvement of 45,000t. during the year. The dividend in October was 16s. a share, and that declared next month we are advised will be 30s. a share. The price of shares is now 38t. each—i.e., 114,000t. at the close of January for the entirety, against 63,000t. a month ago, and 18,000t. a year earlier. There cannot be a question that this property is well handled and the entirety, against 63,000*l*. a month ago, and 18,000*l*. a year earlier. There cannot be a question that this property is well handled, and practically and economically worked, while the gains will compare very favourably with costs of production. The price of metallic tin is now 105*l*. a ton. Wheal Peevor sold 550 tons of tin ore for 21,226*l*., and tin leavings 1693*l*., during 1879, yielding dividends of 5025*l*. The average price per ton was 38*l*. 10s. (about); this tin will now fetch 62*l*. a ton—*i.e.*, 12,925*l*. above that obtained for the past year—so that with a ways of precisit by dividends on the transverse review of precisit by dividends on the transverse trainspace. with current prices of metal the dividends ought to augment three-fold, as any extra costs incurred will more than be met by extra re-turns from ground unwrought during the great depression in the tin

East Pool has exhibited great mineral elasticity. The dividends for the first three quarters of 1879 were 22s., but that for the quarter audited in December was augmented to 17s. 6d., and will, probably, still materially expand. The products for 1879 were — Tin ore, 760 tons, 31,2792, or (say) an average over Wheal Peevor of 2l. 13s. a ton, and within 17s. 6d. a ton of the average price of the whole county. Tinstone was realised to the extent of 1752l. 11s. 8d.; copper ore, stone was realised to the extent of 1752. Ils. 8d.; copper ore, 4483l. Ils.; and arsenic, 2450l. This mine called up only 9s. 9d. a share—3120l. Dividends of 113,520l. have been declared. The price of shares—6420—was 8l. 10s. in January, 1879, 23l. at the close of that year, and 38l. at the end of January, 1880—say, 54,400l., 147,200l., and 243,200l. at the respective dates. So much for tin mining under distrust and difficulties from 1875 to June, 1879, after which Pandora's how furnished hope in the future and it is not propositioning too. box furnished hope in the future, and it is not prognosticating too much if we point to the probability of the same quantities of metals yielding a surplus profit for the current year of 15,000*l.* as a minimum. This mine, discovered in the year 1836, is as yet comparatively in its infancy, and no one can predict with certainty as to the expansion of yield and profit; in the comparatively of the control decade.

yield and profits in the coming decade.

Dolcoath has proved a veteran of over a century's growth, but we have little doubt that mining operations were carried on upon—at times—an extensive scale, subject, of course, to periods of neglect and depression for 500, 1000, and even 2000 years ago, and no possible conjecture can be hazarded as to the aggregate yield and gains from mining during that period. Mr. Edward Ashmead, however, dates the present company from the year 1799, with a subscribed capital of 45,252t., with aggregate dividends of 490,009t. But we should contend that over a million sterling have been returned to the should contend that over a million sterling have been returned to the shareholders during the present century, to say nought of previous nettings. About 42 years ago this mine was considered a failure for copper, and well do we remember the enforced retrenchment introcopper, and well do we remember the enforced retrenchment introduced in the discharge at one fell swoop of the surveyor, assayer, storekeeper, and extra clerk, thus summarily disposing of four officials who crept into office during the brilliant years of success as a copper mine. The shares—179 in number—fell to 8L and 10L apiece, and for 14 years not a single dividend was paid. The mine became rich for tin, and so rapidly progressed that in 1873 the market value was 385,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; a year ago the price was 105,000L; it is now 315,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; a year ago the price was 105,000L; it is now 315,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; a year ago the price was 105,000L; it is now 315,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; a year ago that in 1873 the market value was 385,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; a year ago that in 1873 the market value was 385,000L, and the profits for that year 45,645L; six years later the price fell to 85,000L; and the profits for that year 45,645L; six years later the price was 155,000L; and the profits for that year 45,645L; six years later the price of the lord's agents, I suppose, considering that we company would ever removed about 15 years ago, and all their house have been demolished, the lord's agents, I suppose, considering that we company would ever removed about 15 years ago, and all their house have been demolished, the lord's agents, I suppose, considering that we company would ever removed about 15 years ago, and all their house have been demolished, the lord's agents, I suppose, considering that we company would ever removed about 15 years ago, and all their house have been demolished, the lord's agents, I suppose, considering that we company would ever removed about 15 years ag of black tin for 1879 was 1780 tons, which realised 79,1481. 11s. 11d., and, notwithstanding the heavy cost of skip-roads and other mechanical appliances, dividends of 10 per cent. on capital were declared. The same quantity of ore sold at ruling quotations of metal would increase those profits by 30,000*l*. a year.

South Condurrow sold 777 tons of tin ore during 1879, realising

31,910l. 10s. 4d., and the dividends were 10,715l. 5s. 111. per 6123rd share at the opening of 1879, and 13l. at the close, since which the price has advanced to 14l., equal to 85,742l. for the

1879, stood at 71, at the close of that year 111, and during the past month it has advanced to 17t. 10s,—say, 78,750t. for the entirty. This property was formerly very rich for copper ores, some 300,000 dividends having accrued upon less than 10,000t. capital. I percein however, that in your Share List the capital is stated to be 34,27t, and the gross dividends 169,200t., while Mr. Ashmead in his conpilation of statistics gives the latter as 42,712t. only. The dues as 1-30th, and notwithstanding some necessary and exceptionally heap expenditure during the current year the dividends will probably age. say, 78,7501. for the

expenditure during the current year the dividends will probably as ment some 50 per cent.

Wheal Eliza sold 614 tons of tin ores for 25,922l. 16s., or an ascrage of 42l. 6s. a ton. The dividends were 6656l., or just 10l. 16s. ton of black tin. The dues are 1-21st, and the outlay has already been recouped with 50 per cent. gains. The shares are very find held, but are nominally some 400 to 500 per cent. premium. The mine, with tin ore at 62l. a ton, ought to make profits of 15,000. least during the current year, which will be 15 to 20 per cent, of shares at 100l. each.

The whole of the enumerated six tin mines are conducted upon the Cost-book System, wherein shareholders audit their own a Cost-book System, wherein shareholder and their own account and, consequent on adventurers attending to their own business success has followed their action, as is generally the case in all but nesses wherein personal supervision intervenes. The immediate future nesses wherein personal supervision intervenes. The immediate future of tin mining is most encouraging, and it is with more than ordinary interest that we refer to the company being formed to work the West Wheal Towan, in Illogan. This is most favourably reported uponly experts and practicals, and has already returned large quantities of both copper and tin, being traversed from east to west by the almost exceptionally rich copper lode of Great Towan, which yielded 300 and 3000 tons of high percentage ores monthly, and at one time is traditionally said to have netted profits of a guinea per minute. The shares are 1000 in number, of 25L each, 5L on application and 5L on allotment—the residue in easy payments extending over 18 months, by which time it is anticipated the company will be declaring handsome dividends.

R. TREDINNICK, ome dividends.

R. Tredinnick,

Consulting Mining Engineer; Dealer in Stocks and Share.

6, Mildmay Chambers, Bishopsyate-street Within, Feb. 10.

#### ALL ABOUT TIN.

SIR, Such arrangements having been made that the transit of the SIR,—Such arrangements having been made that the transit of the tinstone from the sampling-floor to the stamping mill shall be marked for cheapness and quick dispatch, we have now to deal with the stamps. The old stamps, each head being lifted by cams, and falling about 8 to 10 inches for the effective blow, has stood the test of many ages, and under certain circumstances seems destined to stand the test of many ages more. If this old stamps which has been so much maligned be fixed and kept in a thorough state of efficiency it will do good duty at a cheap rate. It has been often assumed that 1 ton per head of tinstone in the 24 hours would be the maximum of the old stamping power, but this is by no means the case. With a good stamping power, but this is by no means the case. With a good grates, a discharge of 1½ ton per day of 24 hours should be nearer the mark; and where a stone-breaker is used instead of preparing the stuff by hand labour 2 tons per head per day can be attained. I said that in some situations the old stamps would be likely to stand the that in some situations the old stamps would be likely to stand the test of many ages more. This would be pre-eminently the case where plenty of water-power is available, for in such situations I do may be such as the state of the such situations I do may be such as the such situation of the such situations I do may be such as the such as t

plenty of water-power is available, for in such situations I do not think that anything is likely to supersede it. Where steam-power has to be provided we may find more effective machines, but if you wish to drive the old stamps into limbo it is utterly unsafe to start with the assumption of its being an ineffective machine; everyone who has had the working of a good stamps knows differently.

There have been two very effective stamping machines introduced within the last few years, both of which will probably come to be more used before long. I allude to Mr. Sholl's pneumatic stamp, and what has been called the Elephant stamps, introduced by Mess. Willoughby. I am looking forward with much interest to the coming trial of Sholl's beautiful stamps with all his recent improvements, soon I believe to come off in one of our western mines. The find pneumatic stamps introduced several years ago by Mr. Sholl was very good machine. How it got transferred to some other owner has always been a mystery to me, and whether it was by a magical provery good machine. How it got transferred to some other owner is always been a mystery to me, and whether it was by a magical process of fiscalalchemy, or any other process, is not for me to say. It would appear, however, that in that process it lost its power of having anything to stamp in most of the places it has been set up, and is mow much in use. Now that Mr. Sholl has got such a powerful michine as his present improvement on the old lines appears to be hope he will meet that success with it which I am sure he deserve. willoughby's Elephant stamps is an effective machine, and I should think cheaply constructed and very durable. I was present at a tril of that machine some years ago, when the ease and rapidity with which it pulverised hard tinstone and sent it flying through the grass. which it pulverised hard thistone and sent triving through the games something marvellous; I think it delivered something like 18 blows per minute. The rapid motion of these machines tends to keep the stuff always flying in the coffer, consequently the heavier this not much time to settle in the bottom, which is always the case in slower motion machines. That which settles in the bottom is very much reduced into fine slimes before it again rises against the stamp grate, consequently the proportion of tin in the slime from a quick motion, as a power motion, and the stamp should be much less than from a slower motion. motion stamps should be much less than from a slower motion, as if this be admitted, as I think must be, there must result a considerable economy in the loss of tin in dressing.

W. Tregar.

#### Redruth, Feb. 5. GREAT NORTH DOWNS AND PENDARVES UNITED MINES

SIR,—I have on several occasions attempted to dissuade spec SIR,—I have on several occasions attempted to dissuade speculators in mines from embarking their capital in deep abandoned mines because, almost invariably, great loss is the result. I have directed their attention to several cases where capital has been wasted in submines. I instanced Great Wheal Vor, where the loss on the last working was 250,000L; Great Wheal Alfred, where the last working was concluded with a loss of 150,000L, and the preceding working with a loss by Messrs. Taylor and Co. of 80,000L; Godolphin, with loss of 150,000L; East Crinnis, with a similar loss; Wheal Town, with a loss of 80,000L; Prosper United with a great loss, and Great Wheal Busy with a considerable loss; and some others with like with a loss of 80,000*l*.; Prosper United with a great loss, and Great Wheal Busy with a considerable loss; and some others with like results. With all those instances of failure before their eyes, promoters of mines will project the resuscitation of mines which were abandoned on account of poverty, if not exhaustion. Great North Downs was worked lastly under the management of Capt. Joseph Vivian (deceased), a first-class practical miner, who could not make it pay current costs after all the plant was in position, and supplied at a heavy expresse. It hink there were three purming-engines of

when that has been done it is questionable whether the returns pay the labour cost, leaving the outfit as a loss to the company. pay the labour cost, leaving the outfit as a loss to the company projectors of this enterprise may succeed in inducing some for shareholders to subscribe capital for the undertaking, but t little or no chance, in my belief, that the capital required will uli mately be reimbursed. The first holders may retire by selling of at an early date, but those who hold on to the end will, doubtless, because the capital selections and the capital selections. heavy losers, and holding on is legitimate mining. Capt. I always holds on his interest everywhere, but I expect he know much to connect himself with such a seheme as this.

The above remarks equally apply to Pendarves United, which was abandoned like most other mines are from poverty. It was fair worked, and it would not nearly meet current costs, and yet it proposed to re-plant and re-work it. Tin at the time of its abandoment was. I think higher than it is a transmitted to the proposed to re-plant and re-work it. mine—just over 12½ per cent. interest on ruling quotations; at present value of tin the dividends should double during 1880. The dues are 1-24th, the works were commenced 15 to 20 years ago, the total dividends have been 38,110L, and the capital expended 38,421L 16s. 6d.

South Wheal Frances sold 728 tons of tin ore for 28,970L 5s. 7d., and declared dividends of 8437L 10s. The price of shares in January. for the 60,00 their know (in fa much —the I suppagain town bankı the pu

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and excha bank tify the outlay of 20,000*l*. in machinery, &c., for re-opening the mine The formation of a company is, therefore, a questionable proposition of act. I would try to persuade all who wish to get any interest for their money to invest it in more hopeful properties. I am an advocate for legitimate mining; but mining in such places as Great North cause of their character. Money expended in the revival of such mines and the high premiums charged in some cases for setts have mines and the high premiums charged in some cases for setts have hought mining into disrepute amongst capitalists, many of whom, hought mining into disrepute amongst capitalists, many of whom, in consequence, have withdrawn their patronage, alleging that mining is an unproductive pursuit, and that the promoters are "sharks."

PRO BONO PUBLICO.

WEST BASSET.

SIB,—A question has been asked as to the merits of this mine compared with an old and not undeserved favourite, Tincroft, in the mining market. It is abundantly clear that the general public have taken but little notice of the rapid strides this mine has been making towards prosperity. Four quarters ago it stood indebted to its bankers and others over 25,000L, and unless I am a false prophet the whole or nearly the whole of this enormous debt will be wiped out by the next quarter's account, and by Midsummer if tin only keeps moderately firm it will be in a position to declare a handsome dividend. None but that grand old mine Dolcoath and its neighbour East Pool have done anything equalling this, and if I mistake not the latter will be run very close for second honours to the premier mine of the county. The returns of black tin in West Basset for the 52 weeks ending Dec. 31, 1879, averaged over 83 tons per month, and cost 34L per ton. With the prospect of an increased output, and an average selling price of 60L per ton, it is evident that its profits must be over rather than under 2000L a month. Wheal Peevor gratified us yesterday with a handsome profit; but even this highly favoured little bal must yield the palm to its larger and more enduring rival, and in a few short months in spite of all prejudices it will establish its position as the third best mine in Cornwall.

A MINER SIR, -A question has been asked as to the merits of this mine comition as the third best mine in Cornwall.

#### NEGLECTED SECURITIES-NEW BRONFLOYD.

NEGLECTED SECURITIES—NEW BRONFLOYD.

Sir,—Attention ought to be called to this valuable lead property, situated near Aberystwith, South Wales. The shares are of 5t. value, with 4t. 17s. paid, leaving about 5300 issued, and with a small debenture capital added. The lead ore contains silver, and this pays the cost of smelting; a valuable consideration, no more calls need be anticipated, and large returns will be made this year immediately a winze is sunk from the 63 to the 73, where a valuable discovery has been made. The 120 must shortly strike a body of ore (found so rich above in the 110, the indications being of such a nature as to instify the certain belief that the ore holds and will shortly be struck richer than ever. The price of lead in America being nearly 23t. per ton, this metal must largely advance, and cause properties like New Bronfloyd Mine to come into particular notice very shortly. Having been a splendid mine paying large dividends in 1869, everything points to a sudden return to former prosperity. The mine is now returning lead, and will pay costs and give some profits at 25 tons per month, which will be greatly increased ere long should the 63 or intermediate level strike a body of ore as indications point to, and which point is under the body of rich ore struck in the 52 above, we have a very wealthy property at once. The machinery of New Bronfard like in magnificent order; it consists of two sylendid water. ave a very wealthy property at once. The machinery of New Bron-ord is in magnificent order; it consists of two splendid water-heels, and all the necessary appliances for the return of very large mantities monthly; and, situated in the finest district in Cardigandamand with such rich nelghbours as East Darren, &c., must shortly become one of the greatest mining properties in South Wales.

MINING ENGINEER.

#### LEAD MINES-HERODSFOOT.

SIR,—"Observer," in his letter of last week, is quite correct in his remarks on the wild demand that has existed for shares in tin and copper mines, while those in sound and highly promising lead mines have been almost neglected, and have certainly not attracted the notice have been almost neglected, and have certainly not attracted the notice of investors, which their merits so well deserve, especially when it is evident that English lead must see a much longer price; and while on this subject it occurs to me to call the attention of the readers of your valuable paper to the low price at which Herodsfoot are selling compared with the high prices of other lead mine shares. Here is a mine known to possess splendid prospects, realising 17t. 10s. per ton for their ore, and soon to pay dividends, but selling under 5t. per share, or—in other words—only 14,000 for the whole property; while Frongoch, in 11,000 shares, is selling at 5t. each, which is 55,000t. for the mine; and Gwern-y-Mynydd, in 10,000 shares, at 6t. each, or 60,000t for the mine. Then, surely, Mr. Editor, investors have in their wild rush after other shares lost sight of Herodsfoot, and as I know the mineral capacities of all the properties (say) that the Herodsfoot, having only 3000 shares are honestly worth, and should (in face of the above facts) be now marketable, and will soon see a (in face of the above facts) be now marketable, and will soon see a much longer price. Indeed, I predict a brilliant future for the mine—therefore, let your readers look to facts and Herodsfoot, while shares are low.

J. H. L.

#### FAILURES IN BUSINESS.

FAILURES IN BUSINESS.

SIR,—About a century ago when the newspapers and magazines reported a bankruptcy the word was abbreviated thus—bkpt., because I suppose it was deemed somewhat unrespectable to write it in full against the name of the unfortunate individual. I remember when 50 years ago a Cornish lawyer was "Gazetted," his proud wife was ashamed to be driven in her carriage to the neighbouring market town without drawn blinds! At the present time, so common are bankruptcies, there is little or no shame felt on account thereof. There are many who glory in resorting to the Bankruptcy Court for the purpose os cheating their creditors. It is very remarkable that so many farmers have been compelled of late to seek relief through that Court. When I was a boy the failure of a farmer was an event unknown, at least to me. The year 1816 was the worst harvest that has occurred in this century—for I well remember it—and yet I do not remember to have heard of a single failure amongst the farmers in consequence of it. It may be asked—"How do farmers fail now more than in former times?" There are several causes. One is the rents are much higher than they were, owing to the competition for the occupation of land, the landowners, of course, accepting as much rent as they can get for their farms. Another cause is the higher scale of living adopted by nearly every farmer, and the higher education given to their children. rent as they can get for their farms. Another cause is the ingues scale of living adopted by nearly every farmer, and the higher education given to their children. Formerly a piano was rarely to be met with in a farmer's house; now most farmers, or many of them, have that instrument in their houses, and get their daughters taught music, some of them by resident governesses. The farmers indulge more in the superfluities of life than they did. Another cause is to be found in the increase of rates, which fall very heavily on the occuriers of life.

be tound in the increase of rates, which fall very heavily on the occupiers of land, and they have been increasing almost every year. When the limit will be arrived at I cannot say. The Union houses have entailed a heavy burthen on all occupiers.

Formerly when in this country a man was declared bankrupt he had to give up everything he possessed in the world, but in the United States of America the creditors could not deprive a man of his working implements, which was a very considerate provision. At present in England creditors are most liberal towards debtors. Creditors in England creditors are most liberal towards debtors. Creditors sometimes wrong themselves by forcing debtors into bankruptcy when they might do better by accepting a composition and giving a limited time for acceptance. time for payment. There was a case at Falmouth where the debton offered 2s. in 1l., which was refused. The estate realised 400l. 300l. offered 2s. in 1l., which was refused. The estate realised 400l., 300l. of which was swallowed up in costs, the creditors receiving only 1s. in 1l. There was another case at Roche, where the debtor offered 2s. 6d in 1l. which in II. There was another case at Roche, where the debtor offered 2s. 6d. in 1l., which was declined, and I understand that all the effects, nearly 1000l., were absorbed by lawyers and liquidators! 80 much for the folly of those concerned in the opposition. I may as well inform you that I refer to the case of Capt. D. Cock, whose failure who noe of the most unexpected of events that could be conceived. It occurred, I believe, in this way:—He had being doing business with some gentlemen out of the county in relation to clay business with some gentlemen out of the county in relation to clay and tin works, and they paid him the costs of the works in bills of exchange to the extent of nearly 20,000 L, which he indorsed to his bankers and obtained cash on them. These bills were renewed from

These bills were renewed from

time to time until the bankers' confidence in the acceptors' solvency failed. The result was Capt. Cock's cheques for money to pay the labourers were returned. This came upon him like a thunderbolt. He was frightened, and in his fright, scarcely knowing what he was about, he unwisely and at once crossed the Atlantic to New York. By the time he arrived there, or before, he saw his error, and when there telegraphed to his creditors that he would return in a few days, which he did, and found he was declared a bankrupt. The parties concerned in the winding up of his affairs did him a great injustice by keeping his affairs in hand so long (nearly two years) before he obtained his discharge, there being apparently no valid reason for so many adjournments as took place. I have much pleasure in saying that his former friends are so thoroughly satisfied as to the honesty of his principles and conduct that they have committed into his hands the management of several important works, which he is successfully of his principles and conduct that they have committed into his hands the management of several important works, which he is successfully carrying out. He is also successful in his own undertakings, and is paying off his own debts due to those who have no legal claim on him because incurred before his bankruptcy, for he says "every one shall be paid" except the holders of the bills referred to above. For a discharged bankrupt to pay cancelled debts is such a rare occurrence that I mention this fact to Capt. Cock's honour and without his knowledge. I have been told that many or his neighbours, who during his fall kept aloof from him and spoke against him, are now pleased to take his orders. "His last days will be his best."

Truro, Feb. 10.

R. SYMONS.

#### EAST PEEVOR MINE.

SIR,—The letter of "A Miner," published in last week's Journal, calls into question the run of the Peevor lodes into this sett. In reply I need only observe that this is at present being investigated, and I believe it will soon be shown that the paragraph originally communicated to you was correct, and what is more satisfactory still, that East Peevor will prove to be a mine quite worthy of its name.—Feb. 11.

X. Y. Z.

#### EAST PEEVOR MINE.

SIB,—I have observed the letter of "Miner" in last week's Journal on the above mine, which is simply a lot of false statements.—(1) East Peevor is in the Peevor district, and only half a mile from Peevor, and in a direct line from Peevor.—(2) There are no mines in operation between East Peevor and Wheal Peevor.—(3) East Peevor not only includes Britain sett, it has several other portions of ground nearer Peevor. "Miner" seems to think that Peevor lode does not go out of the sett. I suppose it is gone into a piece of ground he has somewhere. I challenge "Miner," or anyone else, to assert that East Peevor is not in the Peevor district, or that it is not a very valuable property. There are several large and well-known. asser that has Feevor is not in the Feevor district, or that it is not a very valuable property. There are several large and well-known lodes in East Peevor. I was quite pleased yesterday to see some stones of tin the miners had from the mine. In the course of a few weeks I feel convinced that a most valuable discovery will be made in East Peevor. I hope that before "Miner" again rushes into print he will learn to tell the truth. "Miner's" epistle is anything but a pleasant letter. It is anything but manly, and anything but minerlike.—New Fowey Consols Mine.

T. R. PARKYN, jun., M.E.

#### CWM DWYFOR MINE.

SIR,—At length the management of this concern has woke up. But for the successive mistakes made by the three agents who have had charge of the mine in spending the shareholders' money in sinking a shaft and erecting expensive machinery instead of bringing up the deep adit by which the lodes would have been intersected at at about 60 fms. from the surface, this mine would probably at the present time have been giving good returns. The shareholders appear to have been content to let matters take their course, and if they do not attend the meeting called for next week the property is likely to slip through their fingers. It would seem that the Cwm likely to slip through their fingers. It would seem that the Cwm
Dwyfor Mine is on the same line of lode as the Symdde Dylluan Mine
recently re-started by Messrs. Watson Brothers. Why do not the
management complete the trial of the Brynarian property, which
seems to offer prospects of "more speedy results" than the Cwm
Dwyfor, though the latter is doubtless a valuable property if efficiently worked.

A SMALL SHAREHOLDER.

Eth 10.

#### THE LLANRWST DISTRICT, AND GRIFFIN MINE.

SIR,—"Vide et Crede" in last Saturday's Journal indicates that his Llanrwst district is limited to three or four mines of his own selection, which is doubtless very good so far as he has gone, but not exhaustive. The main lode of the Griffin Mine is a powerful caunter, and the agent has not claimed for it relationship with the other mines of the district. But he very rightly considers that as the great lodes of the Gors and Aberllyn pass through the Griffin sett, and will be intersected by operations on the Griffin lode, the whole may, and in all probability will, be very much enhanced in value thereby. Had it been his object to claim kindred with other known lodes he might point out that the Griffin lode bears north-west by south-east, and that the principal ore-bearing lode of the Llanrwst and Bettws-y-Goed Mines bear the same, also that a line drawn north-west from the Griffin would pass through the Llanrwst and Bettws-y-Goed Mines. Could "Vide et Crede" undertake to say it is not identical? Again, he might ask could "Vide et Crede" or any practical man, undertake to assert that the great red lode of the SIR,-" Vide et Crede" in last Saturday's Journal indicates that practical man, undertake to assert that the great red lode of the Griffin is not identical with the main east and west lode of the Coed Mawr Pool Mine? or that the lodes in the Griffin are found under Mawr Pool Mine? or that the lodes in the Griffin are found under less favourable circumstances than in the mines named? It would be interesting to know which group of lodes has been most productive in the past. The mines selected by "Vide et Crede" will give the largest output of lead ore for the present; but my firm conviction, based upon long experience, is that the several interesting operations soon to come off on the Griffin lodes, together with the cheap and speedy means at hand for extended workings, natural facilities, and cheap transit, the most profitable mine of the immediate future will be the—

Fib. 11. Feb. 11.

#### MINING IN LLANARMON

SIR,-In last week's Journal I very much admire the style, clear-Sig,—in last week's Journal I very much admire the style, clearness, and value of the information given on this subject by your correspondent Mr. Fraser. It is a really excellent contribution to the literature of this matter. When gentlemen of his standing in mining will venture to come forth in the way he has done without fee or reward, and promise as he did to be at the service of intending investors, who may visit the locality with all the necessary information such as plans sections and descriptions of the various ledges. vestors, who may visit the locality with all the necessary information, such as plans, sections, and descriptions of the various lodes, &c., named by him, it augurs well for all concerned. I think if others equally capable would follow Mr. Fraser's example good would be done all round. I am afraid there is, however, too much standing upon the usages and practices of the "profession" for his good example to be much followed. There is too much of the feeling not to give the slightest information unless under stipulations of being paid "the usual fees." I think Mr. Fraser's way of looking at matters is, however, the most practical and common sense way, and will ultimately "bring more grist to the mill" than the determination to give no information which is "not paid for. I do not know tion to give no information which is not paid for. I do not know Mr. Fraser, never having seen him in my life, and with him, and am only speaking as I read of him. life, and have no interest him I have from time to time advised your readers as intending investors in lead mines to go for solid information. I trust he will follow up his last week's article by others of a similar character. I think he might throw a great light upon the feasibility of the amalgamation scheme I proposed a few weeks since. Do so Mr. F., and blige yours, &c. I see your ubiquitous North Wales Correspondent has given a de

scription of what he saw in Llanarmon, and I must say if he had gone with a determination to "spy the nakedness of the land" he could not have done it better. It is a pity all things are not new, and old things cannot be thrown on one side at will. I look upon all the places he names as having served the purposes to a great exter which they were started, and that they are not in the bleak extent for barren condition he names as monuments of folly, but that all of them more or less have done good in many ways during the times the

various properties were worked. It is a pity according to his view the "roseate hues of early dawn" in mining matters cannot last for ever. But so it is. I think his picture of desolation is very much overdrawn, and as a contrast I would ask him to go over the same ground in July, and then he will see something else than fields covered with huge heaps of rubbish having the appearance of lime fields, except at the lime kilns of Gwern-y-Mynydd. Even amongst this description of desolation your Correspondent cannot help but leave his best wishes and his blessing to this district, and after all he did see some windlasses and whims where the industrious miners are at work, and when these men have dug into the bowels of the earth at work, and when these men have dug into the bowels of the earth and brought out its treasures they, too, will grow old perhaps and make great waste heaps. Can it be otherwise in this kind of work? How wonderful! Thanks, however, for his good wishes; they are precious, and highly prized.—Feb. 11.

#### MINING IN CARDIGANSHIRE.

MINING IN CARDIGANSHIRE.

SIR,—Having been absent from London I have only just seen the replies to my letter of Jan. 1. Your North Wales Correspondent gives me credit for the sincerity of my remarks, and I thank him for doing so. I am, however, sorry that my time is too much occupied to give attention to the establishment of a North Wales Institute of Mining Engineers, but at the same time should such be established it shall have my earnest support. One of your correspondents, and whose letter appears in the Journal of Jan. 24, signs himself "Fox." What he says as to my letter being written more to call attention to the Bwleh United Mines is utterly untrue, and in a subsequent issue of the Journal I find someone, under the signature of "Shareholder" has written a vindication of my remarks which would suggest itself to the mind of any unprejudiced person, and I have also to thank the writer for his defence of my letter, and his appreciation of the soundness of my remarks. For the benefit of "Fox" permit me to say that in my letter I knew of no better illustration of sound legitimate mining in Cardiganshire than Bwleh United, and I chose it to show how a good mine properly worked, with adequate capital applied to its good mine properly worked, with adequate capital applied to its proper use, will, as a rule, prosper, whilst starved undertakings perish, and I repeat that there is no mine in Cardiganshire which has so much in its favour to bring it to a success as Bwlch United. London, Feb. 12.

#### MINING IN CARDIGANSHIRE.

MINING IN CARDIGANSHIRE.

SIR,—It is cheering to read the letters on mining prospects in this county, and with lead slowly but surely advancing there is no doubt more attention will be given by the investing public to sound undertakings, and some now dormant but rich mines will again spring into life and vigour. Amongst other properties your correspondent "T.J." names the Llwynmalees. I am glad to see it is not to be left in its quiescent state. I have been many times on the spot, and for scenery few places can equal it—the eye is charmed with its beauties. Standing on the mine you have a panorama spread out-before you rich in mountain, wood, and copse, and meandering through the valley the River Tivey shining in the noonday sun like a golden sheen. What, however, have sylvan beauties to do with mining? I repeat, if you can get riches below as well as above one will please the pocket and the other the imagination. The lode is a continuation of the Lisburn Mine lode, and underlays north at 35°, and is well known to be second to none in the county, averaging from 2 ft. to 9 ft. wide. A large amount has been expended on the property, and it deserves all the success it merits. and it deserves all the success it merits.

and it deserves all the success it merits.

At the Bwlch United the mine in a very short time will be fully equipped, and now that the frost has disappeared the workmen are rapidly completing the improvements to the dressing machinery. This company was brought out in the time of the greatest depression, and was ceded to the present company for a small sum in shares, in comparison to the very large amount spent in the development of the property, the working capital being obtained, and the amount to pay dividends on being small. The shares are undoubtedly worth a high premium, and it is to be hoped the company will ere long work their other mine (the Pwll-yr-Henaid), the shaft of which is over 70 fms. in depth, and left rich in ore. With the Powell Mines about being re-started, and the attention of capitalists being called to other good mines, we may confidently look forward to renewed prosperity in Cardiganshire.—Feb. 12.

NEW BROOKWOOD—BUCKFASTLEIGH.

#### NEW BROOKWOOD-BUCKFASTLEIGH.

SIR,—The richness in copper of the Brookwood champion lode is so well known that there is good promise for the New Brookwood, the lease of which has just been granted to Mr. Jacob Rowland. The the lease of which has just been granted to Mr. Jacob Rowland. The property embraces two estates to the east of Brookwood, and only divided from it by the Murdle stream, which works their machinery. When the Brookwood was owned by Messrs. Robins and Crease large quantities of copper were sold as high as 222. 28. 6d. per tor; it was afterwards sold to some Liskeard adventurers, who in a short time sold 60.002. worth of copper, yielding the Earl of Macelesfield 6001. per annum for royalty, and leaving the adventurers 2501, per month profit. The mine has recently passed into the possession of the South Devon Consols, registered with 30,0001. capital, and they are erecting valuable machinery for dressing the halvans, and propose reworking the many rich ends going east. This is very encouraging for New Brookwood, which, moreover, has been inspected and favourably reported on by Messrs. J. Richards, Browning, Rosewarne, and other practical agents. The mine has two powerful streams of water. It is situated between a very steep hill standing north and outh, and the lodes running east and west enable us to drive in adits on the course of the lodes. There are good roads around and through the sett, and the Great Western Railway is only about a mile and a half distant, so that perseverance and economy should make it a success.

George Sparke.

ance and economy should make it a success.

George Sparke.

Abburton, Feb. 4.

English and Australian Copper Company.—The report of the directors, prepared for presentation at the meeting on Thursday next, states that the gross quantity of ore, regulus, and precipitate received from various mines during the twelve months ending June 1879 (taking purchases at Port Adelaide and at Newcastle together) was 10,239 tons, against 16,194 tons 7½ cwts. in the previous year. The quantity of ore, regulus, and precipitate smelted at the Port Adelaide Smelthag Works in twelve months to June, 1879, was 3108½ tons, against 395½ tons in the preceding year, and at the Newcastle Works 7502½ tons, against 3959½ tons in the preceding year. The quantity of the twelve months to end June, 1875 v. as 565½ tons, against 197½ tons in the preceding year. The shipments and sale sta tae twelve months ended June, 1879, were-shipped from South Australia, 35 tons, against 192½ tons in the preceding year; sold in South Australia, 35 tons, against 1932 tons in the preceding year; sold in South Australia, 36 tons, against 1932 tons in the preceding year; sold in South Australia, 36 tons, against 1932 tons in the preceding year; sold in South Australia, 36 tons, against 1932 tons, against 1934 tons; and copper sold in Newcastle in return for ore, 976½ tons, against 1934 tons; and copper sold in Newcastle in return for ore, 976½ tons, against 1934 tons; to the precious year, but this was caused rather by the irregularity of shipments to Newcastle than by any falling off in the production of the mine. The latest advices from our manager at Adelaide state that the prospects of future or supplies are improving. They were getting larger supplies than ever from New Caledonia. The rise in the preceding against 482 tons in supplies and the precious year, but this was caused rather by the irregularity of shipments to Newcastle than by any falling off in the prod

Epps's Cocoa-Grateful and Comforting .- "By a thorough EPPS'S COCOA—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocos, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of aubtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping surselves well fortified with pure blood and a properly nourshed frame."—Crit Service Gazetie.—Sold only in packets labelled—"James Epps and Co., Homeopathic Chemists, London;"

### Aleetings of Public Companies.

#### WEST CHIVERTON MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Basinghall-street, on Friday, Feb. 6,

Mr. THOMAS SMITH in the chair.

Mr. GRANVILLE SHARP (the secretary) read the notice calling the meeting. The decounts showed that the balance against the mine at the date of the accounts, Nov. 1, was £0561. 7s. 5d.

The Official Manax mentioned that there had been no lead sales during the four months; there were two lots on the dressing flows but

meeting. The accounts showed that the balance against the mine at the date of the accounts, Nov. 1, was 20561. 7s. 5d.

The Offarman mentioned that there had been no lead sales during the four months; there were two lots on the dressing-floors, but scarcely ready for delivery. He moved that the statement of accounts be received and passed.

—A SHARRHOLDER seconded the resolution, which was put and carried.

Capt. Souther self it would be seen from his report that he advised the mine should be abandehed below the 30 fm. level, and the pitwork pulled up, as there were not shifted to so ourse they would be enabled to continue the 70 cross-cut self. It sales addited this course they would be enabled to continue the 70 cross-cut self. It sales addited this course they would be enabled to continue the 70 cross-cut self. It sales addited this course they would be enabled to continue the 70 cross-cut self. It sales a self-to-rise sufficient mineral at the present prices to more than pay the cost of this mode of working.

In reply to Mr. W. H. SHARP, Capt. SOUTHEY said there was nothing whatever below the 30 which would induce him to advise the adventurers to go on.

A SHARHOLDER said he felt increased confidence from the fact that Captain Southey had had the courage to honestly state his belief that it was hopeless to work the mine in depth, and thus save any further outlay in that direction.

Capt. Southers, in reply to a question, said that if the change suggested were carried out, the expents was then received and adopted.

On the metion of the GHARMAN, a resolution was then passed authorising the agents were the self-out of the agents was then received and adopted.

On the metion of the GHARMAN, a resolution was then passed authorising the agents were the self-out of the self-out

committee be formed to inspect the mine, the selection of an interpretable left to such committee.

A discussion ensued. Some of the shareholders present expressed their approval of the appointment of a committee, but none of them seemed willing to serve upon it, and the matter was allowed to drop.

A vote of thanks to the Chairman closed the proceedings.

#### EAST CHIVERTON MINING COMPANY.

A general meeting of shareholders was held at the offices of the

A general meeting of shareholders was held at the offices of the company, Basinghell-street, on Friday, Feb. 6,

Mr. THOMAS SMITH in the chair.

Mr. GRANVILLE SHARP (the secretary) read the notice convening the theeting, and the minutes of the previous meeting.

The CHAIRMAN said a resolution was passed at the last meeting with respect to inspecting a drill, and he wished to know whether this had been done? ——The SECRETARY said the drill had been inspected by Mr. Hocking and Capt. Southey, but it was found to be unsuitable to the requirements of the East Chiverton Mine.

The minutes were then confirmed. The accounts were taken as read, and showed a debit balance of 5011. 10s. 11d.

The CHAIRMAN said the costs were about the same as in the previous sixteen weeks. At the last meeting a call of 5s. per share was made, which realised 10494. 2s. The balance against the mine, after paying the working costs to the end of November, was 5011. 10s. 11d.

The SECRETARY remarked that if the assets now shown were compared with those stitled in the last balance-sheet an improvement would be noticed. The arreads of calls had been reduced from 5414. to 1214. The forfeited shares was, he was afraid, a bad item, the amount due on them being 1344; but against this they had the 503 forfeited shares, which would realise far more than the amount due on them. The present balance of 5011. 10s. 11d. compared with one of 55th. 5s. 4d. at the light meeting.

Capt. Secretary: What size engine do you want? ——Mr. HOCKING: One that would cost about 360.—a portable engine of about 20-horse power.

Capt. Secretary: What size engine do you want? ——Mr. HOCKING: One that would cost about 360.—a portable engine of about 20-horse power.

Capt. Secretary: Have you driven on the lode west? ——Qapt. SOUTHEY: Yes, about 6 or 7 ft., but before the next meeting we shall have seen a great deal more of the lode.

The CHAIRMAN, in proposing the adoption and circulation of the report and accounts, said he thought they were both very promising, and that it onl

The SECRETARY: Have you driven on the lode west?—Capt. SOUTHEY: Yes, about 8 or 7 ft., but before the next meeting we shall have seen a great deal more of the lode.

The CHAIRMAN, in proposing the adoption and circulation of the report and accounts, said he thought they were both very promising, and that it only required a little more patience to bring the mine into a paying condition. He believed that by the date of the next meeting they would be nearly paying.

Capt. SOUTHEY, in reply to a question, said they were now raising about 12 cwts. of lead to the fathom. This is from the back of the 74.

Aft. West seconded the motion, and it was carried unanimously.

The SECRETARY said he believed that if the forfeited shares were sold by auction, they would get more than enough to buy the engine.

The CHAIRMAN proposed that an engine of the description stated by Mr. Hocking should be purchased at a cost of from 3501, and not exceeding 5001. The work could be done at three times the present rate, without any increase in the cost. Such an engine would. He thought some of the committee should have been present at the meeting to have spoken on this question.—The ECERTARY said this was the first meeting at which no member of the committee had been present.

Capt. SOUTHEY said Mr. Hocking and himself would do all they could to get a realing good engine, leaving the final decision to the committee.

On the motion of the CHAIRMAN, seconded by Mr. West, a call of 5s. per share was made, payable in equal instalments on March 1 and May 1, with a discount of 5 per cent. on amounts paid prior to those dates.

The CHAIRMAN then suggested that the S03 forfeited shares should be offered to the present shareholders at 11. per share, rateably to their holdings. This would bring the number of shares up to 4000 again, and the funds provided would pay for the engine.—The proposition was adopted, the CHAIRMAN bended to the present shareholders at 14. per share, rateably to their holdings. This would bring the number of shares up to 4000

#### WHEAL JANE MINING COMPANY.

A general meeting of shareholders in this mine was held at the

A general meeting of shareholders in this mine was held at the offices of the company, Basinghall-street, on Friday, Feb. 6, Mr. John Hocking, jun. (the purser), in the chair.

The statement of accounts was read, and showed that the labour costs on the four months' working were 1402l. 3s. 5d.; the bills charged, 143l. 8s. 7d.; the merchants' bills, 470l. 5s. 11d.; the dues, 219l. 11s. 9d., or less stock (105l. 6s. 5d.), 116l. 5s. 4d.; and with other charges the total was 2180l. 9s. 3d. The tin sold in the same period realised 2002l. 14s. 9d., and the loss, therefore, was 80l. 0s. 10d.

The CHAIRMAN said he would explain how the deficit of 3628l. 18s. 3d., which was the balance against the adventurers, had arisen. A call was made some time since which had been expended not in working.

was made some time since which had been expended not in working the mine but in the plant. They had written off 1902l. deficiency in stock account. It was suggested that when the mine was taken over the mine but in the plant. They had written off 1902s. deficiency in stock account. It was suggested that when the mine was taken over by the present management the tin in stock should have been weighed. That was not done, and at the present moment it might be said that it should have been done. In the stock of 151 tons of tin was included ores, partially dressed, 925s., and that represented part and parcel of the tin stock which had been presented to the adventurers from time to time. They shad also paid in bank charges between 1490s. and 1500s. on account of tin, and if they added the deficiency on the stock itself of 925s., which they had written off as tin partially dressed, thay would have the thing complete. These three figures made up in round numbers the deficiency which now appeared against the adventurers. The costs were included to Dec. 27, and there was a pay day on Saturday last, which included the amount of 370s. Itabilities. Of merchants liabilities nearly 1800s, was due to one firm—Messrs. Vivian and Sons, independent of 500s. which was quanting, and it was right to mention that Messrs. Vivian had always dealt fairly with the company; and although they did not press the company for payment, it was right that their balance-sheet should be reduced. Therefore, notice had been given of a call to wipe off the deficiency.

Capt. SOUTHER, in reply to a question, said they had as much caloning power as they had ore to dress, and also sufficient power to drive it.

Mr. GOYLD BILLER asked Capt. Southey what were the prospects for the next four mentals?—Capt. SOUTHER and the probability was they would make a profit.

said about 15 tons per month for the next four months, and after that no doubt the quantity could be increased.

Mr. GOULD SHAEF said that as a holder of about 500 shares, he was perfectly willing to agree to the call.

Capt. SOUTHEF remarked that they did not want the money to work the mine, but to pay the debts. At present the monthly cost was about 350°.

Mr. WHITEHEAD expressed his dissatisfaction that the thin stock had not been weighed when it was taken over. At the same time he expressed his confidence in the management, and his willingness to pay the call, but said he thought notice of the call should have been given at the last meeting.

On the motion of the CHAIRMAN, seconded by Mr. WHITEHEAD, the financial statement for the four months ended Dec. 31 was passed.

Mr. GOULD SHAEF then moved that a call of 1ℓ, per share be made, that no discount be allowed, and that the call be payable on or before March 1.

Mr. THOMAS SMITH seconded the resolution, which was put and carried.

The CHAIRMAN mentioned that when the call was made they would owe 1500ℓ, but against that there was several tons of tin in course of dressing.

Capt. SOUTHEN, in reply to an observation, said a ton of tin from stock had never been sold without consulting some of the shareholders.

On the motion of Mr. WHITEHEAD, seconded by Mr. THOMAS SMITH, the foliowing were appointed a committee to confer with the purser and manager on the working of the mines—Major Saunders, Col. Perceval, Mr. Gould Sharp, and Mr. Brackett.

Mr. Brackett.
The manager's report was then adopted, and ordered to be printed and circulated amongst the shareholders.
On the motion of Mr. Thomas Smith, seconded by Mr. Gould Sharp, a vote of thanks was passed to the Chairman, and the meeting broke up.

#### WHEAL PEEVOR MINING COMPANY.

The four-monthly meeting of adventurers was held at the mine on Tuesday, Mr. Thomas Pryor in the chair.

The usual preliminaries having been disposed of, the statement of accounts, showing a profit of 4916l. on the 16 weeks' working, was submitted. The total expenditure (including lord's and Stannaries dues) was 5820l., and the total receipts (the chief item of which was 9496l., for 174 tons of black tin) were 10,739l.

The CHAIRMAN said that these accounts included all liabilities to

The CHAIRMAN said that these accounts included all liabilities to the end of January. They had not been able to get in all the bills for January so as to make the amount up exactly, but they had made an estimate of the amount due. Their labour cost was a little heavier than at the last meeting, but they had extended their dressing-floors and their burning-house at a cost of 200l. extra, and it had all been charged in the present accounts. All the tin had actually been sold, and the tin bills were on the table. At the last meeting they had a balance in favour of the mine of 3366l. 8s. 8d., out of which a dividend of the row sheave was declared leaving a halance of \$66l. 8s. 8d. dend of 16s. per share was declared, leaving a balance of 966l. 8s. 8d. This, added to the present profit, left an available balance of 5883l. 4s. 11d.

dend of 16s. per share was declared, leaving a balance of 9667. 8s. 8d. This, added to the present profit, left an available balance of 5883t. 4s. 11d.

The agents' report stated that the sinking of the engine-shaft is progressing very favourably, and is now down 7½ fms. below the 80. We calculate to reach the 90 and cut the lode at that depth in about three months hence. The lode in the 80 driving west is worth 40t. per fathom, and is the full size of the end. The lode in the 70 west is worth 20t. per fathom. Since the last meeting we have driven a cross-cut north of this level 7 fms., and intersected the middle lode; the lode at this point is 10 ft. wide, and worth about 20t. per fathom. This we consider very important, being entirely in new ground, and larger and more productive than where seen in any of the upper levels. We shall now drive east and west on its course. We are also driving the 70 west on the north lode; the lode produces a little tin, but not enough to value. The lode in the 60 west is worth 30t. per fathom. The lode in the 48 west is worth 12t, per fathom. The rise in the back of this level west is up 7 fms., and the lode is worth 10t. per fathom. We have not yet intersected the middle lode in the cos-cut driving north at this level, but expect to do so daily. The lode in the 35 west is worth 30t, per fathom. The lode in the winze sinking in the bottom of the 36, on the middle lode, is worth 10t, per fathom. The lode in the 10th of the 36, on the middle lode, is worth 10th. per fathom. The lode in the 10th of the 36, on the middle lode, in worth 30th, per fathom. The lode in the 10th of the 36, on the middle lode, is worth 30th. Per fathom the back of this level is up 6 fms., and the lode is worth 20th per fathom. The lode in the 15th west of main rise, is worth 9th, per fathom. The lode in the 15th west of main rise, is worth 9th, per fathom. The lode in the 15th west of main rise, is worth 9th, per fathom. The lode in the 15th west of main rise, is worth 9th, per fathom. The lode in the 15

Capt. White added that the middle lode recently cut at the 70, 10 ft. wide, had, he considered, enhanced the value of the mine considerably, inasmuch as not a more important point had been opened up in the mine since they first cut the South lode. Being a bottom lode, he considered it something very important. At the 60 they had a pare of tributers working at a point directly over where they cut the lode, and they had been able to ascertain that the value of the stuff was 5 per cent., and being worked at 85. in 12. From this point at the 70 to the point being worked at the 50 there were only 9 fms. between. As regarded their 26, which had greatly improved, he did not think he had ever seen a better lode in any other end since he had been connected with the mine. (Applause,) They had a wonderful lode there that day. They would see that the ends from the 80 to the 26, six in number, were valued none of them less than 12. Per fathom, and one was as high as 70, a report good enough in itself, and it showed a better aggregate than any report ever presented at that mine. They had working on tutwork 86 men; out of this number there were 36 working in dead ground, or exploring, such as cross-cutting, sinking shaft, &c. There were also 27 of them driving ends, and in rises and winzes, all of which were opening up profitable ground. The number working on tribute was 51, and they had altogether employed underground and at surface about 280 hands,

On the motion of Mr. Rawlings the accounts and the report were passed.

The Charman said the next question to consider was what they were to do with the large profit they had made. It was for the adventurers to decide. They had generally gone on the principle of making a call when they incurred a debt, and he believed that was according to the true Cost-book System; and on the other hand, when they made a legitimate profit it was only fair and reasonable that they should divide it. The profit would amount to a dividend of 32a, 6d, per share, which would above 4878., and add 411,

hear.)

Mr. Michell moved that a dividend of 11. 12s. 6d. per share be declared.—Mr. Thromson (Rotherham) seconded the motion, and it was carried unanimously. The Culhman and his brother! Capt. Joseph Pryor), who had been with them since the commencement of the mine as resident agent, had been asked to take the management of Wheal Prussia, and if the accepted that he would of course have to leave Wheal Pressal, and if the accepted that he would of course have to leave Wheal Pressal, and if the accepted that he would of course have to leave Wheal Pressal, and if the mine as reliable to see him promoted, and having a better position. Wheal Prussia, he believed, was a valuable property, and having a better position. Wheal Prussia, he believed, was a valuable property and he hoped it would turn out a second Wheal Presor. Capt. Pryor, had placed his resignation in his hands, and if they accepted it he had another man to propose in his place—a man who had been connected with the mine since its commencement, and a very able man as a pluman. There was not a better miner or steadler fellow, irrespective of his other qualifications, than Thomas King, their pitman, and he thought, as shareholders they were bound to promote deserving men.—Capt. Marcassow: He is a capital man. Capt. Warris was quite satisfied they could not do better than appoint King, His qualifications were second to none as pitman. Mr. Michelle Leyenses the same opinion, and said he did not believe there was any pitwork in the country of Cornwall kept in better condition than the pitundone what ought to have leen done. Applause.

Mr. Richizkos said, where they had a man who had acted well in a responsible position it should be their duty to encourage him, and it would induce other people to discharge their duties with a reasonable hope of advancement. (Hear, hear.)—The Chairman the moved that Capt. Pryor's resignation be accepted; that the best thanks of the adventurers be given to him for his past services and attention to the interests of the company; ear.) Mr. Michell moved that a dividend of 1l. 12s. 6d. per share be declared.—

knal. [Feb. 14, 1880.]

him. He valued their appreciation of his services more than the money. Re had been with them for eight years, and he trusted he would give equal might faction to his new employers. (Applause.)

Mr. Thompson thought that the time had come when they ought to give some better recognition than that of words to those who had managed the mass one better recognition than that of words to those who had managed the mass one better recognition than that of words to those who had managed the mass one better recognition than that of words to those who had managed the managed matter than the largest shareholder, is with the mile from the them to the security of that mile largest shareholder, had it in his mind to ask them to give the executive some recognition for their services. He noticed that throughout the whole of the last account their panase vices. He noticed that throughout the whole of the last account their panase with the same had occurred this time. There was a time to sell and a time one, and to same had occurred this time. There was a time to sell and a time of the was not managed matters that he got as rise upon every sale of time was fined as matter, and, on the other hand, by close attention and judiciousness to make several hundred pounds. He believed the executive consuited as to they plause.) He would propose that they present them with 100 guiness into means to further their interest, and they had succeeded remarkally well, they plause.) He would propose that they present them with 100 guiness into managed matters and the part of th

ned together.

After dinner and the usual loyal toasts, Mr. CHELLEW propose

After dinner and the usual loyal toasts, Mr. CHELLEW proposed "The continued success of, and additional riches in, Wheal Peevor." He thought there was not to be found in the county of Cornwall a more thoroughly judicious, straightforward, house manager than the gentleman who had been for three or four year at the head of Wheal Peevor, and he would couple his name with

"The continued success of, and additional riches in, Whell Peevor." He thought there was not to be found in the country of Cornwall a more thoroughly judicious, straightforward, hoses manager than the gentleman who had been for three or four year at the head of Wheal Peevor, and he would couple his name win the toast. (Applause.)

Capt. WhITE, in response, said he was pleased to inform them, a far as he could judge, that the success in the past would be continued for a considerable time into the future. (Applause.) This he considered to be one of the great events that they wished to auticipate in the face of the continued of the great events that they wished to auticipate in the face of the continued of the con agent at the same salary of \$6\$. Sa, a month.—The motion was seconded and agent at the same salary of \$6\$. Sa, a month.—The motion was seconded and the same salary of \$6\$. Sa, a month.—The motion was seconded and the same salary of \$6\$. Sa, a month.—The motion was seconded and the same salary of \$6\$. Sa, a month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as month.—The motion was seconded and the same salary of \$6\$. Sa, as same salary of \$6\$. Sa, s

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Nr. Michell, in responding, referred to Great North Downs, and said they returned from there 65,000% worth of copper in one year, and from 40,000% to 60,000% worth for the waste of the following the

### PRINCE PATRICK LEAD MINING COMPANY.

The ordinary general meeting of shareholders was held at the office of the company, Cambridge Chambers, Lord-street, Liverpool, on Monday, Feb. 9,—Mr. THOMAS GERARD in the chair.

Mr. THOMAS HUGHES (the scoretary) read the notice convening

The should be a set general meeting were read and confirmed. The should be a position to state that the great discovered in the control of the should be a position to state that the great discovered in the should be a position to state that the great discovered in the should be a position to state that the great discovered in the should be a position to state that the great discovered in the should be a position to the very credit pipe. 31, 1479, will be found with the should be a position to the very credit pipe. 31, 1479, will be found with the should be a position to the position of the position

scheeces shares at 4s. discount there is a loss to the company of 16002, and in order to recoup this amount the directors now propose to issue the remaining 4006 shares at 20s. each, at a premium of 10s. per share, these shares to be offered to the present shareholders pro rata, in the proportion of one in every six ordinary shares held, and one in every eight preference shares held. This issue will give the company a profit of 20002, as against the 16002. loss on the 8000 shares, or a set profit of 4002, to be placed to capital account. Each shareholder will receive a printed notice of this issue, along with a report of the proceedings of this meeting. I do not see any reason why the minimum dividend should be last han 25 per cent. for the current year, and I think it may be more than that, as I believe the reserves alone now in sight would easily give that return for some time to come. It is the intention of the directors to open up the ore from at Hughes' shaft, which has been suspended during the past year. I shink it will be well to read for you the report on this portion of the mine at seepas the work was suspended:—"Hughes' shaft has been surk from the 50, north and south lode, about 15 fms. The object we had in view in sinking this safe, and and viving the 62 was to get under a sump sunk below the 50, in which we left and driving the 62 was to get under a sump sunk below the 50, in which we left adol does of oer rather more than a year ago, and where we got nearly hear that whay a struck the same shute of ore in the 62, and have within the last day or two broken therefrom solid lumps of lead from 1 to 2 owts, each, I sunot year safe and the safe and properly on the safe and the safe a

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shaft, will double the value of the mine, by enabling us to greatly increase the regular sales of ore, and at the same time add to the reserves.

Capt. Yeroe, in reply to questions from Mr. Irvine, Mr. Nelson, and other shareholders respecting the depth of the new or Gerard's shaft, said it was 30 fms. deep, and about 60 fms. to the east of the ore ground in the 50, and in driving about 5 fathoms from the shaft the flat lode has been cut very rich, and it will, from all appearances, fival the great course of ore in the 50. Independently of the lode in the 30, just mentioned, the east and west, or Pant lode, had been cut only 15 fathoms from surface in sinking Gerard's shaft. They were now driving upon the course of the lode eastward, and, although they had gone only a couple of fathoms, they had raised a nice pile of ore therefrom, samples of which were now before them.

Mr. Cannon wished to know the width and production of the great lode?—

of lathoms, they had raised a nice pile of ore therefrom, samples of which were now before them.

Mr. Cannon wished to know the width and production of the great lode?—Capt. Vercoe said the main lode varied from 10 to 30 ft. wide, sind in some places it yields 40 tons of lead to the fathom, including the full width of the lode.

Mr. Huch Evans asked for an explanation of one of two items in the balance-sheet?—The Chairman gave a full and clear explanation with which Mr. Evans expressed himself satisfied.

The Chairman then proposed—"That the accounts and reports be received, adopted, printed, and circulated amongst the shareholders."—Seconded by Mr. Hobske, and carried

Mr. Hadfield asked for information as to the ore on hand for which credit was taken in the balance-sheet. He would like to know how they got at the value of the ore?

The CHAIRMAN said the 50 tons of ore on hand was in the lead-house ready

#### GLENROY LEAD MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Austinfriars, on Thursday, Feb. 5,
Mr. S. W. DAUKES in the chair.
The LONDON MANAGER read the notice convening the meeeting,

offices of the company, Austinfrints, on Thursday, Feb. 5,

Mr. S. W. DAUKES in the chair.

The London Manager read the notice convening the meeeting, and the following report from the directors:—

Capt. Rowe's report, already circulated, with the balance-sheet, will have given you full particulars of the work done at the mine in the past year and the present prospects. It is encouraging to find that Capt. Rowe has still great confidence that when the 103 south reaches the dip of the ore in the 60 for a considerable length, will have greatly increased in value and be found to pay for protitable working." He also reports having lately found a rib of rich blende about 1 ft. wide in the ottom of the 60 north, and that the 163 will soon be under this. Your directors have been urged to resume the sinking of the shaft without delay, adopting boring machinery, with which it could be accomplished in one-third less time than by manual labour. It is represented that in depth a very valuable lode may be looked for, and this view seems considerably confirmed by the richness of the adjoining mine—Great Laxey—in the deeper levels. Of course calls would have to be made to meet the costs, but it is said that the market value of the property would be considerably enhanced by this bold and miner-like course, and the prespect of very important results when the object was reached. The total cost (including the boring machinery) is estimated at 1200. The uncalled capital (less present liabilities) is 5000. The directors would like to have the opinion of the shareholders upon this point. In accordance with the Articles of Association one of your directors—Mr. Lamb—refires, but being eligible offers himself for reelection, as does also the auditor.

The report of Capt. Rowe, dated Jan. 26, was taken as read, and the London Manager then read a supplementary letter, dated Feb. 3.

The Chairman said the following telegram from the mine had just been received by Capt. Rowe considered they were likely to intersect the lode, and find it pr

Mr. Waddington said if they were only going 40 fms. or so he would not advise them to buy boring machinery. If the ground were hard it would be desirable to have a borer, but with easy ground and only a few fathoms to sink it would be a waste of money to go to such an expense. If they had long holes made and used dynamite the sinking would be carried on quite as fast as they could take the stuff out. In hard ground where a considerable depth had to be sunk he thought boring machinery was an essential, and he was trying to get it introduced into the Cornish mines with which he was connected.

Mr. Watson was also of opinion that it would be better to continue the sinking by hand labour.

Mr. Watson was also of opinion that it would be better to continue the sinking by hand labour.

Gut. Rows, in reply to a question, said they had sunk about 3 fms. a month. Mr. Kerley suggested that it should be left in the hands of the directors to bruchase boring machines or not as they should think proper. (Hear, hear.) They should not have their bands tied either way.

The CharkNan said he was glad that the matter had been discussed, and the directors would consider the matter further, and decide what they thought best to be done in the interests of the shareholders. If a change should take place in the ground which rendered it desirable to employ boring machinery they would get it. He then moved the reception and adoption of the report and accounts. Mr. WADDINGTON seconded the motion, which was carried unanimously. It was also resolved, on the motion of the CHARMAN, seconded by Dr. Girbon That this meeting recommends that the sinking of the shaft be resumed at once for 20 or 30 fathoms deeper, and that the question of boring machinery be left to the discretion of the directors.

once for 20 or 30 fathoms deeper, and that the question of the discretion of the directors, Mr. Waddington on Mr. Bright seconded; the re-election of the retiring director, Mr. H. W. Lamb, and the motion was carried. Mr. B. Mitchell was re-appointed auditor.

The meeting then closed with the usual compliments.

was re-appointed auditor.

The meeting then closed with the usual compliments.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

The ordinary general meeting of shareholders was held at the Cannon-street Hotel on Thursday,

Mr. A. T. THOMSON, the Chairman, presiding.

The notice calling the meeting was read by Mr. J. W. PURCHASE, the Secretary; the report of the directors was taken as read,

The CHAIRMAN said the directors generally made the report so full that there was little left for the chairman to say: This was the first month in which the alteration of the postal contrate with the Peninsular and Oriental Company came into force, and the mail now came in on Thirsday instead of Monday, and went out in the following week, so that seven clear days were given to answer letters. A letter had been received from Mr. Bland about half-an-hour before the commencement of the meeting; the directors had scarcely had time to consider it, but the general tenour of it was that the amount of quartz crushed was less than for the previous month, and the gold was 49 ozs. less, but that the average of the return of gold vas larger. The balance-abeet of profits enable 900, to be divided between the companies. The net receipts from the gold exceeded those of last month, but the receipts from the tilluters were less. The total receipts from the Criterion exceeded last month by 15st. Some time since a new process had beef adopted at Sandhurst, called the cilorine process, by means of which it was thought that a large amount of gold could be extracted from the tailings, and thus prove of great importance to the company; but the hepsel of the director in the content of the property was a large quantity of good quartz. When the levels approached the boundary in each case Cfing a little over 4 ozs. per ton. The portion of the Criterion claim which had been purchased by Mr. Bland was being steadily worked from the Nos. 8 and 9 levels, particularly from the eastern vein, where it was a larger portion of it, and if they could get that lar

#### VICTORIA (LONDON) MINING COMPANY

VICTORIA (LONDON) MINING COMPANY

The ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday,

Mr. A. T. THOMSON in the chair.

Mr. J. W. PURCHASE (the secretary) read the notice convening the meeting, and the report and accounts were taken as read.

The CHAIRMAN said the investments of the company were virtually represented by the South Clunes Company, which had been advancing faithfully, and doing well. The last reports were the best received, and the one which arrived that morning was the best they had ever had from the property. Reductions had been made in the rent and also in Mr. Bland's salary during the past year. The shareholders would remember that they instructed the board to write to Mr. Bland upon the subject. They did so, and Mr. Bland very handsomely placed himself in the hands of the directors, and his salary had been reduced to 50%. The tributers seemed to be doing pretty well, but he could hardly at present give any definite statement as to the results of the Clorine process. The Chairman concluded by moving the adoption of the report and accounts, which he thought were sufficiently explicit without any further comment.

A SHAREHOLDER asked to what date the directors were paid?—The CHAIRMAN, in reply, said that nothing was done with them, as the shareholders were continually calling for them, and the directors could not place the sums of deposit.

Mr. Ray complained very much of the director's fees, which he considered excepts the sums of the considered excepts.

or the sum of the directors could not place the sums on deposit.

Mr. Bay complained very much of the directors could not place the sums on deposit.

Mr. Bay complained very much of the directors fees, which he considered excessive. He had made this remark before, but the board always fell back upon the Deed of Settlement—a deed which was quite unsuited to modern times. Mr. Bland had set a very good example, and the board would do well to follow it. The CHAIRMAN, in reply, intimated that the board was not prepared to take a less amount than 200% a year for their joint services. It was certainly a low rate of remuneration enough for any company to pay.

A SHAREHOLDER thought it was paying 200% a year for management which merely meant looking over a few letters. He thought the expense outrageous, when it was remembered that only 600% of the capital was left—a view which Mr. Donagan supported.

Mr. COHIETT seconded the motion for the adoption of the report and accounts, and it was adopted.

Mr. Coffiert seconded the motion for the adoption of the report and accounts, and it was adopted.

On the motion of the Chairnax, dividends of 5d. per share on the fully-paid shares and 4d. per share on those parily paid were declared, payable on and after March 1 next.

The Chairnax then proposed the re-election of the retiring director, Mr. J. R. MacDonnell.—Mr. Cobbett seconded the proposition, which was adopted after some opposition, and an attempt to induce Mr. MacDonnell to set an example to his colleagues by consenting to take less fees.

Mr. Brooks and Mr. Donagan, the auditors, were re-elected.

[For remainder of Meetings, see to-day's Journal.]

to have an opinion on this matter, and to hear any suggestions which to have an opinion on this matter, and to hear any suggestions which to have an opinion on this matter, and to hear any suggestions which will have to offer as to the desirability or otherwise of using a boring machine at all—whether it was more important to save time by employing boring machinery, or to save expense by continuing the sinking in the usual way. The London Mar. J. Warson saked what would be the cost of sinking without the borer, and what time it would occupy?

Captain Rowe answered that they sank about 2 fms. a month, at an average of the grown as a supplied to the pipe and the lead ring, compresses the latter, forcing it out of the pipe and the lead ring, compresses the latter, forcing it out of the pipe and the lead ring, compresses the latter, forcing it out of the provided to go on sinking without the borer.

Mr. Warson said if it were decided to use boring machinery it would necessitate a call of 10s, per share. He thought they had better go on as they were.

Dr. Gibbon thought the policy of sinking the shaft had been an exceedingly good one, and that it would be very desirable that the shrking should be constituted, for the more speedily they got to the required depth the better.

Captain Rowe anspiled that the ground was easy. In the north end they were any any strength of the pipe in the socket. This is done at the pipe foundry, and the provided to the pipe into a concentric position, Agroove with rounded corners is cast inside of the socket, communicating with the threaded hole previously alluded to, and this groove is filled with lead corners is cast inside of the socket. This is done at the pipe and the lead of the pipe into a concentric position, Agroove with rounded corners is cast inside of the socket. This is done at the pipe and the lead of the pipe into a concentric position, Agroove with rounded corners is cast inside of the socket. This is done at the pipe as not obtained the pipe and the lead of the pipe into NEW HYDROSTATIC JOINT .- A simple and economic joint is being

a cast-iron plug, also cast in a chill, is screwed into place to retain the forcing material. The jack is so proportioned as to require the strength of an ordinary man to sufficiently compress the lead, and the whole operation of making a joint on a 10-in. pipe by an unskilled labourer need not exceed five minutes. The quantity of lea t used is considerably less than one-fourth that usually required for caulted joints with large pipes, and even with 2-in. pipes little more than half auffices. The advantage of the arrangement will be readily estimated by hydraulic and gas engineers.

#### THE TIN TRADE.

Messrs. STRAUSS and	Co. (London	Jan.	31)	issue	the	followin	aį
atistics of tin:—	•	1880.					
Straits and Australian	, spotTons	7,366		9,122		7,980	
,, ,,	landing	731		403			
Straits, afloat	***************************************	170		1,225		855	
Australian afloat		2,294		1,605		3,370	
Banca, on warrants		1,865		1,966		1,484	
Billiton, spot		1.678		1.975		1,236	
afloat		620		800		1,125	
Australian tin in Holl	and	200		341	*****	550	
Total	********	14,924		17,437		16,936	
Prices of Straits		£98 0		£59 15		£64 0	
Deliveries during mor	th in London	1,366		1,050		1,147	
20 20 21		491		351		461	
Total Shipments (Janua		*********		To	ns	50	
20 ; 20	" Austral					35	
			Dur	ing the	year	8 01-	
						1878.	
Shipments from Straits						3,051	
Shipments from Austral	ia to London	7,70	1	8,51	5	9,368	
Deliveries of tin in Lond	ion	13,06	0	12,20	5	10,926	
Deliveries of tin in Lond Banca in Tradin	ion and Holland g Company's ha						

Messrs. EBELING and HAVELAAR (Rotterdam, Jan. 31) state: Messrs. EBELING and HAVELAAR (Rotterdam, Jan. 31) state:—
The new year, which was looked forward to very hopefully by all those who are
connected with the metal trade, has certainly not disappointed the sanguine expectations so far as the is concerned. With a very brisk demand, chiefly from the
trade, prices show an advance of 4% fis. over those ruling at the close of last month
and are still tending upward. The rise has not been brought about by speculative buying, and nothing could give a better evidence of its soundness. The
Dutch Trading Company's first sale in 1880 took place on Tuesday, Jan. 27, when
19,973 slabs Banca were sold from 5½ fis. to 60½ fis., average 59 fis. Next sale
will be held toward the end of March. Banca has been in large demand, and with
important transactions the price for this description has gradually advanced
from 55 fis. to 60 fis. There are now buyers at 59 fis., sellers asking 59½ fis.
Billiton with a less extensive business, the consumptive demand mostly ruling
for Banca. Several parcels afloat and for forward delivery have found ready
buyers on speculative account. Our present quotation is 5½ fis. On Monday,
Feb. 9, a public sale of 13,000 peculs Billiton will take place at Batavia.

The position of Banca tin in Holland on Jan. 31, according to the official
Returns of the Dutch Trading Company, was—

1850. 1879. 1879.

Beturns of the Dutch Trading Company, wa	18-			
	1880.	1879.	1878.	
Import in JanuarySlabs	9,869	 13,995	 4,061	
Deliveries in January	9.012	 6.552	 8,117	
Stock second hand	59,687	 62,927	 47,506	
Unsold Stock			 14,002	
Total stock	91,823	 79,861	61,508	
AfloatPeculs	4,200	 19,000	 3,500	
Statement of Billiton:-				
Import in JanuarySlabs	2,630	 8,700	 9,429	
	6,170			
Stock	53,714	63,192		
AfloatPeculs	9,000			
Quotation, Jan. 31—Banca	5914 11		40 fl.	
Billiton	591/ fl	 351/4 fl	 39 11.	
(III)	12211 6	 10	 143 43	

These combined returns of Banca and Billiton for 1830, compared with those for 1879, exhibit—A decrease of the import for January of 319 tons; an increase of the deliveries for January of 136 tons; a decrease of the stock second hand of 337 tons; an increase of the unsold stock of 475 tons; an increase of the total stock of 76 tons; an advance of the quotation of Banca of 38f. 5s. per ton. The Government Returns for the month of November are as follows;—Export of TIN FROM HOLLAND.

	Fo	FI	love:	mb	er.		For	ele	even i	mo	nths.
	1879		1878	. :	1877.		1879.		1878.		1877.
To GermanyTons	269		379		296	*******	2866		3192		3641
England	31		13		-		506		144		326
Belgium	80		80		114		1320		1305		1573
France	36		13		- 6		484		355		549
Hamburg	10		60		56		339		574		453
The United States			3		-		348		13		75
Other countries											
Total	443		636		541	********	6328		6216		6539
			-	-	_						

Messrs. Rickards and Budd (Feb. 10)—During the present month the syndicate of speculators who have held so large a proportion of the stock of tin have been favoured by the enormous demand from America and the tin-plate trade at home, and have quitted a very considerable quantity of their holdings both in Holland and London. Doubtless there is more to come from Holland both of Straits and Australian, and it probably will come, provided buyers are willing to pay over 90%. Per ton for these descriptions. The future course of the market will depend mainly on the action of the American buyers. If they have not yet got enough we shall see shortening stocks and higher rates, or the present high prices will be at least maintained. If, however, purchases for tin on American account should diminish in the same proportion as from and steel, supplies will come forward to England again to their ordinary extent, and our stocks will increase. The delivery of foreign out of warehouse, London and Holland, was—In January, 1880, 1850 tons; against 1600 in 1879, and 1600 tons in January, 1878. The stock of tin in public stocks here and in Holland, ontiting Banca in Dutch Trading Company's hands, was—Jan. 31, 1880, 11,800 tons; Jan. 31, 1879, 13,800 tons; Dea. 31, 1878, 11,600 tons. Dec. 31, 1878, 11,600 tons. Dec. 31, 1878, 11,600 tons. Dec. 31, 1879, 11,600 tons. Dec. 31, 1879, 13,800 tons; Dec. 31

#### THE COPPER TRADE.

Messrs. HENRY R. MERTON and Co. (Leadenhall-street	Feb 1)
issue the following Statistics of Copper:—	, 100.1)
Stocks in Europe:	
	270
Chili ores and regulus, Liverpool and Swansea (equal to fine) Tons	
Chili bars in Liverpool	
Chili bars in Swansea	4,258
Chili ingots in Liverpool	50
Foreign copper (chiefly Australian) in London	4,589
Foreign copper ,, Landing	
English copper in London	50
Chili bars and ingots and barilla in Havre	2,517
Other copper in Havre	170
Stocks of copper contained in other foreign ore and Spanish Preci- pitate (fine)	533
Afloat, and chartered from Chili to Europe (advised by mail):	
Anoat, and chartered from Chili to Europe (advised by mail):	3,063
Ore and regulus (equal to fine)	
Bars and ingots	850
By cable, ores and regulus (fine)	
Bars and ingots.	2,050
Afloat from Australia (advised by mail):	
Fine copper	1,381
By cable: Fine copper	2,800
Total	59,644

Messrs. RICKARDS and BUDD (Feb. 10)—The market for copper is suffering from the large amount of charters advised for the second fortnight in January (4400 tons), and also from the inevitable reaction which occurs in a market after a considerable rise in values. Doubtless, if speculators were prepared to repeat the history of 1872, we might, even with our much larger stock, see 90, for Chill bars this spring; but the lesson learned then is not quite forgotten, and we shall probably, barring accidents, find that our market will remain 

5,299 ... 3,808 ... 4,133 842 ... 910 ... 978 1,069 ... 2,012 ... 1,846 1,574 ... 5,013 ... 1,441 1,219 ... 1,089 ... 1,237 Total 4,704 9,024 5,550

Total stocks in Europe and affoat, Feb. 1
adding fine copper in ore and precipitate at Liverpool, not previously included

Total deliveries of Chili and other copper out of public stocks—Swansea, Liverpool, London, and Havre—in November, 1879, 2400 tons; December, 1879, 4000 ons; January, 1880, 5900 tons.

of Chili copper produce remaining unsold here on Jan. 1 were—one, 770 tons; regular, 1870 tons; copper, 4609 tons. On Jan. 4 there arrived 770 tons of one by the Goodynan, 1870 tons; copper, 4609 tons. On Jan. 4 there arrived 770 tons of one by the

Prince Alfred. The private sales were—ore, 1540 tons; regulus, 1270 tons; copper \$51 tons. Consequently the present stocks are—ore: Chill,—; Newfoundland, (Betts Cove), 1596; Portuguese, 1105; British, 40; total unsold at Swansea, 2735 tons; regulus, 600 tons; and copper, 4258 tons. These totals represent about 4500 tons fine copper. The Chill charters for the first fornight of the year were 1200 tons in barnace material, much less than forthe corresponding period for the past four years. Buyers exhibited a great eagerness to buy on the receipt of the news, and bars were sold to the extent of 1200 tons the same day at a rise of 40s, to 50s, per ton. Values have steadily advanced during the whole month, and a very large quantily of metal has changed hands. In furnace material the following have been some of the more important sales between Jan. 13 and Jan. 2;—750 tons Chili regulus, to arrive, at 14s. 5d.; per 11; 624 tons Aljustrel, 14s. 3d.; 400 tons Chili regulus, to not so the special state of 1200 tons cape ore, at 13s. 1c. 4d.; 203 tons Polivian ore, ditto, 14s. 3d.; 565 tons Chili regulus, to arrive, 15s.; 600 tons Cape ore, to arrive, 14s. 9d.; 200 tons Chili regulus, to arrive, 15s.; 601 tons Cape ore, to arrive, 14s. 9d.; 200 tons Chili regulus, to arrive, 15s.; 601 tons Cape ore, to arrive, 14s. 9d.; 200 tons Cape ore, to arrive, 15s.; 602 tons Chili regulus, to arrive, 15s.; 603 tons Cape ore, to arrive, 14s. 9d.; 200 tons Cape ore, to arrive, 15s.; 604 tons Chili regulus, to arrive, 15s.; 605 tons Cape ore, to arrive, 15s.; 606 tons Cape ore, to arrive, 14s. 9d.; 200 tons Cape ore, to arrive, 15s.; 606 tons Cape ore, to arrive, 15s.; 607 tons Cape ore, to arrive, 15s.; 608 tons Cape ore, to arrive, 15s.; 609 tons Cap

#### THE COAL TRADE.

Mr. J. R. Scott, the Registrar of the London Coal Market, has published the following statistics of imports and exports of coals into and from the port and district of London, by sea, railway, and canal, during January, 1880:— IMPORTS.

By Sea. Ships. Tons. | By Railway and Canal. Tons cwt.

Newcastle	223		203,939	Lond. & North-Western.	128,034	15
Seaham	42		24,843	Great Northern	80,671	0
Sunderland	131		102,292	Great Western	95,778	7
Middlesborough	8		1,821	Midland	190,624	
Hartlepool	83		33,129	Great Eastern	72,695	3
Scotch	8		3,803	South-Western	4,620	18
Welsh	11		6,484	Lond, Chat, and Dover.	1,503	0
Yorkshire	6		643	London, Tilbury, and		
Duff	1		230	Southend	77	
Small coal	5		1.651	South-Eastern	1,630	1
Cinders			875	Grand Junction Canal	271	0
Total	525		384,710	Total	575,905	13
Imports-Jan., 1879.					546,730	
			Exp	ORTS.		
Railway-borne coal po	assing	2 60	in transi	tu" through district Ton	s 92,	788
				ssessions, or to foreign parts		

General Statement, 1878 and 1879. Add decrease in trade within the London district ....

#### THE COAL MINES OF THE WESTERN UNITED STATES.

Add decrease in trade within the London district.

THE COAL MINES OF THE WESTERN UNITED STATES.

The permanent prosperity of the Western Coast depends so largely upon an abundant supply of fuel that details of the work done and explorations made are of paramount interest. The coal mines of the western coast of North America are, says Mr. Goodyear,\* limited in extent, and of comparatively recent geological origin. They are none of them of the Carboniferous age, and indeed, so far as yet known, none of them date back to the Cretaceous period. They mostly furnish a non-caking bituminous coal, which belongs to the class of lignites or brown coals. Vancouver's Island, however, produces caking coal, and some caking coal of good quality has also been found in Washington Tearlow. It is a comparative to the coast, and the little that has been special metanorphism. Of the two States and one Tearlow which bedreft the special metanorphism. Of the two States and one Tearlow which bedreft the special metanorphism. Of the two States and one Tearlow which bedreft the facility of the coast and the coast and

considers that the Mount Diable mines themselves have seen their best day had are now rapidly declining, while outside of these old mines the most promise region per large with the State is the eastern and yet unworked part of the property of the control of the

#### THE COMSTOCK LODE-ITS FORMATION AND HISTORY.

To the practical miner the volume\* just completed by Dr. John A. Church, M.E., will prove far more valuable than any of the party scientific treatises hitherto within his reach, since the facts recorded have been ascertained chiefly from underground survey, and not hum mere surface examination; he has, moreover, received every assistant from the mine superintendents and mine surveyors engaged on the locks and has thus been able to secure the utmost possible section. e scientific treatises hitherto within his reach, since the facts records have been ascertained chiefly from underground survey, and not fram mere surface examination; he has, moreover, received every assistant from the mine superintendents and mine surveyors engaged on the lode, and has thus been able to secure the utmost possible accurage. The known limits of the lode cover a space of 22,546 ft., in a direction enarly due magnetic north and south. Great irregularities oze locally, the strike varying, in fact, from north-east to north-west within size of magnetic north. Beginning at the northern end, there are 17 compassion of the control of

AUSTRIAN MINING MANUAL. The twenty-fourth annual edition of the Oesterreichisches Montan-Handbuch—that for 1880—has jet been issued (through Manz's Court and University publishing offer at Vienna), by the Minister of Agriculture. The volume contains the court of the cou full details as to the working plant and personel of all the mining colliery, iron, and metallurgical works throughout the Empire. I list of the mining and metallurgical schools, and the teachers hereing the Greenward of the Greenward Children and Market and Children and Market and Children and Market and Children and Market and of the Government officials in the various districts, and of the various There is, moreover, an admining and metallurgical institutions. There is, moreover, a mirable index in the shape of an alphabelical list of the names the persons mentioned, with a reference to the page on which

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berg rally a quanti grain ( names occur, so that their exact rank and address can be quickly obtained. The volume (obtainable in this country through Messrs. Trübner) will prove of great value to all who have metallurgical business with Austria.

business with Austria.

How to Invest.—Mr. E. J. Bartlett, of 30, Great St. Helen's, London, has published a new edition of his invaluable work "How to Invest." Its popularity is attested by the fact that this is the fourteenth time that it has been found necessary to reprint it. This looks very much as though it bids fair to be a standard work, but of course it can never be a standard work of an ordinary character. The conditions of the markets which determine one "how to invest" are continually changing, and therefore Mr. Bartlett can only reare continually changing, and therefore Mr. Bartlett can only reprint some thousands of copies of his work at a time, for the simple reason that ever and anon he finds it necessary to alter its contents. For example, the present edition has been almost if not entirely rewritten, and he has added an index which facilitates reference. Sevewritten, and investment new to these pages are introduced, and not-For example, the present edition has been almost if not entirely rewritten, and he has added an index which facilitates reference. Several forms of investment new to these pages are introduced, and notably tramways, gas and water companies, and iron and steel, which now have their merits as channels of investment duly weighed in the balances of an evidently impartial judge. Mr. Bartlett is not too sweeping in his condemnation of foreign loans, but we hold it to be of the highest importance that investors should read what he says about Russian indebtedness in the article devoted to this subject. But coming more especially to the department in which we are interested we are glad to observe that Mr. Bartlett has entirely rewritten the article on "Metallic Mines," and he has dealt with them in a style which shows him to be a man upon whom the signs of the times are not lost. Here we may say that throughout this brochure Mr. Bartlett adopts a terse, clear, and vigorous style, but this is especially conspicuous in his article on "Metallic Mines," and with his conslusions we cordially agree. We happen to have a fair remembrance of what he said in his thirteenth edition, and though he might justly have passed as a prophet in the edition that has succeeded it, he does nothing of the kind. He simply claims to have laid before the public the result of 15 years experience, during which he has seen he does nothing of the kind. He simply claims to have laid before the public the result of 15 years experience, during which he has seen the trade of the country, and the metal trade more particularly, emerge from periods of depression almost as dark as that in which it then was. He shows the rise in metals, and quotes the shares which have experienced the greatest advance. He mentions the rise in South Caradon as "unprecedented"—and we think he is right—when in three days the shares advanced 65L in all. He proceeds to give a standard of the country specially recommended, and notably—and we would South Caracon as the shares advanced 65*l*. in all. He proceeds to give a list of mines specially recommended, and notably—and we would add deservedly—gives the palm to some of those which have been so well managed in his own office. Finally, he supposes a person to be invested in twelve mines, which he selects, to the extent of twenty shares. At the end of January, 1879, he would have paid 3163*l*., but he could have realised now 8347*l*. 10s., and the profit would have been 5184*l*. 10s. It was almost unnecessary to add, for the figures themselves are so eloquent, that he thinks he is justified in saying that in tin, copper, and lead shares, particularly the latter, the possibility of the greatest profits are now opened up to the investor. Of all works of the kind which we have seen in recent times we know of none that we can so cordially commend to the notice of our readers. our readers.

Sow AND REAP.—Messrs. Thompson and Sons, of Plymouth, are issuing under this title an interesting and readable monthly—the number for February containing an excellent article on the Stock Exchange, a review of the month's business, a letter recounting the experience of One in Search of a Loan, and an account of a valuable discovery of tin and conner in the Fortessue Mine, with analyses of discovery of tin and copper in the Fortescue Mine, with analyses of the ore, &c. Sow and Reap will undoubtedly interest many of those thinking of investing or borrowing.

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thinking of investing or borrowing.

TRAVERSE TABLES.—The irksomeness of innumerable calculations as the conclusion of a long and fatiguing period of work in the field is a constant cause of complaint with surveyors, and although some efforts in the way of relief have been made by the publication of traverse tables it is but too often found in practice that owing to the incompleteness of the tables it is in many cases as easy to perform the pentire calculation as to reach anything approaching accuracy with the supposed assistant. To remedy this Mr. R. Lloyd Gurden, authorised surveyor for the Governments of New South Wales and Victoria, has prepared the most elaborate and complete series of computations which have yet been issued. The distinctive features of the tables (which are published by Messrs, charles Griffin and Company, of Stationers' Hall-court) and the method of their employment are thus summarised. The tables are calculated to single minutes, and to 100 of distance; the traverses are given to four places of decimals, so that the sines and cosines for a distance of 12 miles can be ascertained correctly to within half an inch; and the whole numbers are so that the sines and cosmes for a distance of 12 limes can be assert tained correctly to within half an inch; and the whole numbers are given in the two centre columns only, and from these the decimal quantities increase towards the edge of the page, the sines increasing to the right, and the cosines to the left. When the whole number changes in a line of tables constructed upon this principle it has been usual to prefix a star to the decimal portion, which had the disadvantage that it occasionally slipped to the next row of figures. This Mr. Gurden has entirely obviated by indicating the change of the whole number by replacing the first 0 of the decimal by a black diamond, which standing within the line of the figures cannot get displaced; the diamonds, moreover, come out so prominently that they are even more readily seen than the stars. The economy both in time and trouble in working with traverse tables and logarithims is well known, whilst the greater reliance to be placed upon the results obtained with traverse tables is beyond question. The tables are excellently printed by Neill and Co., of Edinburgh, in pages about 14 in. by 10 in., in bold and clear italic sanserif figures, so that they can be consulted with the greater fearests facility, and although the accuracy of all such works must be determined by experience the author shows that such works must be determined by experience the author shows that no pains have been spared to ensure it. The tables exhibit results arrived at by two different methods of computation pursued inde-pendently by the author and assistants, and the utmost care has been bestowed upon the work during its progress through the Press, the proof sheets having in every instance been corrected by the writer, notwithstanding the fact that some thousands of miles intervene benotwithstanding the fact that some thousands of miles intervene between himself and the publishers, and finally before publication as a last precaution the tables were recomputed a third time, and the whole work was subjected to a rigid and most careful revision, leaving it, as the author thinks himself justified in believing, absolutely free from error. From the enormous amount of time and labour which the tables will save they may safely be recommended to every surveyor and engineer, with full confidence that they will speedily repay their cost if kept in the office.

OUR WATER SUPPLY.—Under this title a series of letters embracing a discussion for and against the fitness of the Thames and river water for domestic use (originally published in the Surrey Comet) has been reprinted in pamphlet form (London: W. Trounce Gough-square, Fleet-street), and contains much amusing information. In favour of the healthfulness of London, which is, practically speaking, supplied exclusively with Thames and other river water, there is indiputable fact that the death rate is lower than in any other large city in the world, whilst the arguments in support of the assertion that river water is dangerous to health are based almost exclusively on such reports as those of Dr. Frankland, whose views upon chemistry and sanitary matters are admitted to be extreme, and the say the least, peculiar, or of Dr. Hassall, who once had to publish the per he he present eyed of the least, peculiar, or of Dr. Hassall, who none had to publish the per he he present system of water supply, of swallowing cels with his water, but as the "interesting animal" to which he alludes was 8 in. long the present system of water supply, of swallowing cels with his water, but as the "interesting animal" to which he alludes was 8 in. long at the present system of water supply, of swallowing cels with his water, but as the "interesting animal" to which he alludes was 8 in. long at the present system of water supply, of swallowing cels with his water, but as the "interesting animal" to which he alludes was 8 in. long the present system of water supply, of swallowing cels with his water, but as the "interesting animal" to which he alludes was 8 in. long and \( \frac{1}{2} \) in diameter, only those with a Hogg, quoting Ehrenberg and \( \frac{1}{2} \) in diameter, only those with a Hogg, quoting Ehrenberg states that a drop of putrid water will contain as many bacteria as there are human beings on the face of the globe; but the assertion is worthless, since it is not pretended that putrid water, such as Ehrenberg refers to, is suppl OUR WATER SUPPLY.—Under this title a series of letters em bracing a discussion for and against the fitness of the Thames and river water for domestic use (originally published in the Surrey Comet) has been reprinted in pamphlet form (London: W. Trounce Gough-square, Fleet-street), and contains much amusing information. In favour of the healthfulness of London, which is, practically speaking, sunnlied exclusively with Thames and other river water, there is

may be fairly complained of, Messrs. Frankland, Hassall, Hogg, and Co. have still much to prove—they have to show that the chalk water, the use of which they advocate, is not more injurious in other respects. If river water may, in some circumstances, produce thrice the diarrhoa which chalk water produces, the latter will produce five times the amount of urinary disease, and the only fair test would be to take the average mortality per 1000 for a series of several years in two districts supplied. There can be no doubt that much that is two districts supplied. There can be no doubt that much that is written about the effect of the impurities in London water is based upon very weakly supported theory, and that the practice of neglecting to use it as supplied for quenching thirst produces more disease than the drinking of it. The pamphlet is worth reading, but the statements should be tested by published facts.

LETTS'S POPULAR ATLAS.—The cheapness and utility of the publications of Messrs. Letts and Co. are so well known that it will excite no surprise to learn that the Popular Atlas, the first number of which has just been issued by that firm, is a marvel of excellence. The first part, although costing but 7d., contains a well-executed map of the world in two sheets 17 by 14, and an equally good map of the British Isles. Among the special and novel features noticed are an British Isles. Among the special and novel features noticed are an arrangement whereby the relative proportion of the size of the British Isles is constantly kept in view, and the depth of ocean, population, telegraph lines, and position of important lighthouses are clearly shown. The Atlas, when completed, will be the cheapest and most complete published.

#### FOREIGN MINING AND METALLURGY.

It was stated in a recent impression that contracts had been let for 10,000 tons of iron rails for the Belgian State railways. These contracts have been divided as follows:—Acoz Forges Company, 7000 tons; Monceau Blast Furnaces Company, 1900 tons; M. Boucquead, of La Louvière, 1100 tons. These iron rails were ordered by the administration of the Belgian State railways at 81. 12s. per ton, and the Angleur Steelworks Company has just sold steel rails abroad at an average of 81. 16s. per ton. The difference will be seen to be only 4s. per ton, and it is contended accordingly that when the administration of the Belgian State lines was giving out an order for rails it. 4s. per ton, and it is contended accordingly that when the administration of the Belgian State lines was giving out an order for rails it should have ordered steel ones. Plates have been quoted of late in Belgium at 11*t*. 4s. per ton. An advance of 4s. per ton is noted in iron wire. The Meuse Workshops Company, near Liége, are building at present two blowing-engines, one for the Longwy blast furnaces, and the other for Athus. Last year Belgium exported 29,596 tons of iron rails, as compared with 34,273 tons in 1878, and 42,599 tons in 1877; 23,302 tons of plates, against 23,198 tons in 1878, and 16,623 tons in 1877; 154,495 tons of rolled iron, against 132,769 tons in 1878, and 18,237 tons in 1877. Raw pig and old iron were also exported last year to the extent of 36,465 tons, as compared with 5412 tons in 1878, and 11,816 tons in 1877.

ported last year to the extent or 36,465 tons, as compared with 5412 tons in 1878, and 11,816 tons in 1877.

First-class merchants' iron is quoted at Paris at 8l. 16s. per ton, and plates at 10l. per ton. The upward tendency is almost general; the Creusot Works have advanced the basis price of their rolled iron 36s. per ton since Jan. 1. The imports of pig and cast iron into France last year amounted to 153,864 tons, as compared with 166,487 tons in 1878. Adding to these figures the imports of iron and plates to startly invest of 1874 tons for 1879 as compared. tons in 1878. Adding to these figures the imports of iron and plates we arrive at a total import of 234,601 tons for 1879, as compared with 242,625 tons in 1878. On the other hand, the exports of iron plates and pig from France in 1879 were 174,000 tons, as compared with 177,600. tons in 1878. France exported to Belgium last year 38,640 tons of iron minerals, and received 67,000 tons of iron minerals from Belgium in the same period. In 1878 France sent Belgium 49,024 tons of iron minerals, and received 150,831 tons from Belgium in the same period.

49,024 tons of iron minerals, and received 150,831 tons from Beigium in the same period.

The Main and Weser Railway Company has let contracts at Cassel for 1850 tons of Bessemer steel rails, 1612 tons of iron sleepers, and 135 tons of steel tyres. The lowest tenders were 11l. 11s. per ton for the Bessemer steel rails, 8l. 2s. per ton for the iron sleepers, and 11l. per ton for the steel tyres. More furnaces are being lighted in Germany, and prices have continued to advance, especially during the last forthight.

The French markets have been tending upwards as well for coal as The French markets have been tending upwards as well for coal as for iron. The quantity of coal carried by Hamburg railways last year was 157,920 tons. The Altona and Kiel Railway carried 79,070 tons of coal in 1879; the Lubeck and Hamburg Railway, 46,510 tons; and the Berlin and Hamburg Railway, 12,560 tons. The total movement of coal over the lines in question last year was thus 296,060 tons, as compared with 194,440 tons in 1878. All descriptions of coal have experienced an advance at Dusseldorf during the past month. The rise in gas coal has been as much as 2s. per ton, but as regards other qualities the advance has been less material. Coke has remained almost stationary at Dusseldorf. The Louisa Tiefbau Company, in the neighbourhood of Dortmund, has lighted 50 new company, in the neighbourhood of Dortmund, has ingried 30 new coke furnaces. The blast furnaces of the Luxembourg are said to have now found it profitable to lay in supplies of coke in Belgium, and the coke of the Ruhr has, in consequence, lost ground in the Luxembourg. It is not probable, however, that these conditions and circumstances will continue to prevail.

The price of coal has not varied materially upon the Belgian markets; quotations have been supported, but there has been no advance. It is, perhaps, rather extraordinary that coal should be so slow to follow the general unward tendency but we must remember.

slow to follow the general upward tendency, but we must remember that if coal is the last to rise it is also generally the last to fall. It is also reported that in the Charleroi Basin a fresh advance of 1s. 8d. per ton has been decided on. The Belgian Minister of Public Works has just accepted an offer of the Lonette Collieries to supply eight lots of 5200 tons each of ordinary industrial coal at 8s. per ton. Offi-cial returns show that in 1879 Belgium exported 4,275,924 tons of coal, as compared with 3,889,411 tons in 1878, and 3,515,020 tons in 1877. The exports of coke from Belgium in 1879 amounted to 593,443 tons, as compared with 576,607 tons in 1878, and 575,632 tons in 1877.

#### THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY.

DIOS PADRE.-Capt. N.C. Morcom, Dec. 1: A stull is being put in

DIOS PARRE.—Capt. N. C. Morcom, Dec. 1: A stull is being put in the back of the level, in order to take away the metal discovered from the end driven north of Cruz Verde shaft.

Dec. 15: We have just finished the putting in of a long stall in the No. 1 level, driven north from Cruz Verde shaft. The output of green ore at this point will no doubt increase for awhile, unless we come across the workings sooner than we expect.

Dec. 29: The lode in the end of the first level driving north is very axell and of no value it present. The ground is easy to drive through core.

Dec. 29: The lode in the 12, driving north, has still a good appearance; the ore is of a fine quality, and making very strong in the bottom of the level. We thought we should have commenced a winze in bottom of the 12 fm. level before this, but before doing so we want to find the west wall of the lode and the best place to start it. A cross-cut is now being driven west through the lode, which is of no value at present. The productive part of the lode is about 20 ft. wide. If ore is not met with shortly in the cross-cut we shall suspend it and start the winze. The black ore stope below tunnel has undergone no change—still a splendid pitch.

LA VIRGEN.—Dec. 1: 1 am pleased to say we have begun again to stope the back above tunnel level. The excavation we had to fill up was large, and labourers very scarce—hence the delay. The lode is still of a very good looking nature, and the present part of the stope is productive of green ore. In future we must push this point with great vigour for the sake of green ore, which I am sorry to say appears to be getting scarce at other parts. The end driving south of the Virgen winze is holed to one driven north in the 10. This level has opened up a good length of orey ground. The lode is not very rich, but will, doubtless, pay well for extraction, and will, I believe, leave a small profit. The end driving south below the 10, towards the end from the Tirito arch of ground, is holed to each other, as we intended.

Dec. 15: Very fair progress is being made in this stope above the tunnel level, the metal is green at present, and the lode productive. All operations in the 10 are suspended for a few days until we catch a little on the Mina Grande ores, which have been very abundant of late.

Dec. 29: The stopes above the tunnel and in the back of the 10 on this part of the lode are much the same as they have been for some time past.

LA PROVIDENCIA, DEC. 1: The big green ore stope above the tunnel level continues much as usual in regard to productive. He had the western part. If not t

A New Water-Waste Preventer.—An ingenious and cheap apparatus for effectually preventing the waste of water has been patented by Messrs. G. Ullathorne and Thomas Penn. It is adapted for a constant supply of water at any pressure, and it can be applied to the supply of water for domestic and various other purposes. By its use water may be supplied direct from the main, without fear of loss by waste or leakage, and thus the storing of water in cisterns—a system universally condemned as a constant cause of disease—becomes altogether unnecessary. One important advantage claimed for this apparatus is that it can be fixed to almost any existing closet at a very small cost and with hardly any disturbance to present fittings. Such an apparatus comes opportunely, turbance to present fittings. Such an apparatus comes opportunely, considering the present agitation with reference to the better supply of water to the Metropolis. Mr. G. Ullathorne is known to our readers as having introduced the Champion rock-borer, which has worked so successfully driving and sinking in various mines, and which is now so highly spoken of in Cornwall.

A petition for the winding-up of the Inoxidation and Platinum Coating of Metals Company (Limited) is to be heard this day.

### COPPER ORES. Sampled Jan. 21, and sold at Tabb's Hotel, Redruth, Feb. 5. Tons, 85 80 80 78 73 66 60 55 66 62 50 52 Mines Tons. ... 27 | ditto | 21 | ditto | 2 | ditto | 2 | ditto | 2 | ditto | 2 | ditto | 4 | dit 4 11 2 11 4 14 6 18 4 17 6 10 5 14 5 16 ditto 1 South Crofty 30 Wheal Basset 12 St. Aubyn United 12 Cook's Kitchen 10 Tolgus TOTAL PRODUCE. f money and ard... £105 by sonding sale last month, £55. X WHOM THE ORES WERE PURCHASE... Tons. Amount... 260 £1082 18 3 ... 275 1643 13 0 ... 151 684 1 c ... 123½ 830 17 c ... 126½ 507 2 ... 312 7 COMPANIES BY WHOM THE ORES WERE PURCHASED. Names. BY WHOM THE OR Names. Nevill, Druce, and Co. Williams, Foster, and Co. Mason and Elkington Charles Lambert

Copper Ores for sale on Thursday next, at the Royal Hotel, Truro—Mines and parcels.—Devon Great Consols 913—Wheal Crebor 525—South Caradon 430——Marke Valley 210—Glasgow Caradon 160—Levant 150—Bedford United 65—Gawton 55—Thomix 40—Hingston Down 28.—Total, 2576 tons.

#### COPPER ORES.

1031 ..... £ 5060 19 6

Sampled Jan. 14, and sold at Swansea, Jan. 27.	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Betts Cove	5 0
Total 1955 6 9 651 11 0	

TOTALS AND AVERAGES,

21 cwts. Produce. Price. Per unit. Standard

Whole sale ... 1255 ... 1156... 27 13 9 ... 13e, 9d. ....... 239 18 6

NO SALE on Feb. 10.

#### FOREIGN MINES.

FOREIGN MINES.

5T. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, Jan. 22: Froduce nine days (second division of January), 2520 oils. = 1986; 1. RIOHMAND CONSOLDIATED.

5T. RIOHMAND

gone down with the winze ore continues, and it is very probable that it may continue down to the 750 ft. level on indine; where we ran the drift north some 36 ft., and thence east 60 ft. In these drivings we came upon some of the same material (manganese ore). Mr. Finley has employed two men, thus making three men at work on the mine. There is no other work being done upon the milite.

OLORADO UNITED.—Manager's letter, date I Jan. 20: The work of sinking the Silver Ore engin-shaft has been exceedingly slow. It is now 107 ft. below the 9th level. At 120 ft. it will be deep enough to start the 10th and 1th levels, 60 ft. apart. I expost to have it down by the middle of February. From this point last reposte 1 to its presentdepth the shaft has passed through a very fair ore measure. Should my expectations be realised at two what the 10th and 1 ith levels will expose the Terrible Mine by July 1, 1830, will have five times the amount of ore reserves than at any times lince its discovery. The 9th level, east from shaft, has developed a fine body of ore almost all the way. It is now 103 ft. east from winze No. 3, and within 20 ft. of winze No. 2, sunt in advance from the 3th level. Stopes No. 1 and No. 2, cast of Silver Ore shaft, and above 9th Level: No. 1 has twined out a very fair amount of ore, and will yield fairly for the entire block. No. 2 is about the same as to the quantity of ore, but the quality is not quite so good as in stope No. 1.

CHONTALES CONSOLIDATED —W. White, Feb. 12: The directors have this day received advices from their manager (Jan. 5), who reports—Total quartz treated at the stamps during the past month 1450 tons, which produced 160 ozs, of gold, or an average of 2½ dwts, per ton. Total cost at the mines for the month, 9461; value of the gold, 4494: loss, 947f. The above cost includes the sum of 1824 spent on extraneous charges. The stamps are working well and all inachinery kept in the best condition. I think now that we shall be able to keep the 24 heads at work throughout the year without

gold; but I am of opinion that in reference to this there will be no occasion for future complaint, as every month we are now advanting into mere permanently pivalie ground.

CONNOLLY (Nevada).—John Potter, Jan. 12: Good progress has been made in the mine during the past week. The developments made are of a most encouraging nature, promising to open up new deposits of mineral at an early date. The sam's number of miners are at work as reported in my last. I expect to increase my staff in a few days.—Upper Works: A 2 ft. vein of ore is being stripped at this point; will commence to break it down in two or three days. The formation is kindly, and likely to open into a more extensive deposit. Preparations are being made on the 116 ft. level to commence a stope on the ore, which is running up on the footwall nearly perpendicular. The north winze is down on the dip of the ledge S5 ft. below the bottom level, on an incline of 50. The bottom is entirely in quarts, and looks exceedingly well. The footwall is souled the whole distance, but at this point there is no hanging-wall, hence the extent of this deposit is unknown until a drift is run in to ascertain the distance between the walls or the thickness of the ledge.

— J. Potter, Jan. 19: During the past week about 30 tons of ore have been broken in the mine on the different levels, and stored until convenient to do the hoisting, which may probably not be till the end of the month. The general appearance of the mine is decidedly an improvement since my last communication.—Upper Works: The ore vein at this point is giving good indications to continue down on a dip that will come an easy distance to tap from the engine-room by drifting from end of main tunnel. The strike and dip of this deposit cannot yet be definitely decided upon until further developments have been made. Within the last few days a gang of two shifts have started work on the ledge of the 180 ft. level. They have opened up a vein of good quartz, which is giving a most encouraging prospect. The idea of

426-91 kilos., average 14-39 per cent., \$1917-05: less cost-sheet, \$345-77; surplus, \$1917-48.

— The advices received to-day from Chili report that the new mining superintendent, Mr. Thois. B. Hall; had not completed his examination of the mines, and, therefore, deferred the special report until next mail. The general superintendent, however, writes as follows:—"I pay attention to 'your wishes to increase the produce of the mines by a little more stoping; this will be an easy duty to Mr. Hall at Dulcines, but at Checo he must feel his way to act later on.—Checo Silver Mine: On Dec. 24 the tributer wrote to me that he had a lead of a good bunch of silver ores. I sent Capt. Bray to see the mine, and he reports—'I am very pleased to corroborate Ocampo's statement of having cut some good ore about 5 matres below surface driving west; he has met with a branch about two fingers wide of rich silver ore, some of which will give 1500 to 2000 marcs per eajon." Equivalent to 4000 to 5000 ozs, to the ton.—Remittances: I have sent to Valparaiso 38500 to purclasse a bill for your next post; this will shortly be followed by another draft when results are known of present pending ore sales for November.

sent to Valparaiso \$8500 to purchase a bill for your next post; this will shortly be followed by another draft when results are known of present pending ore sales for November.

COLOMBIAN HYDRAULIC.—W. S. Welton, Dec. 19: Malpaso: Run No. 64, from Nov. 13 to Dec. 18, during which time washing was carried on for 437½ hours, produced \$1442'07½. The cost for the sume period was \$1195'22½, including \$137 spent on the new opening. During this run we have turned round and commenced running up the channel, and within a few feet of our former face the gravel has quite changed in character; the bed-rock is deeper here, and we shall be able to bring the sluice in without blasting boulders. We appear to have now reached the good ground found to the south of the high banks. I am sinking a shaft at about the centre of the channel; it is now down 10 ft. below our sluice level, in good gravel, and no signs of bed-rock. The ground is very wet, and this makes sinking difficult without pumps. The lower sluice being now quite rotten, I am bringing in a new doe, on ½-in, grade, which will give us 25 ft. more grade at our present point of operations. This, with the 25 ft. grade lost by Mr. Clarke, will bring us in 56ft, below the old sluice. Everything look as if we should have good returns at Malpaso in future.—Malabar: Run No. 31 from Nov. 15 to Dec. 15, 31 days, during which time washing was carried on for 331 hours, produced \$1087, the cost for the same period being \$1011. The Bed-rock during this run has been the same as during last run, but at one point we have reached granite bed-rock, and the next run will be made here, and I anticipate with improved returns, as the gold will all resch the sluice. The under-current is completed, and will be in operation during the run now about to be made.

FRONTINO AND BOLIVIA (Gold).—The directors have received advices from their agent, accompanied by the secounts for the month of November, which show: 1323 ton produced 1356 cost. of gold, at an average of 10.z. 12 grs. per ton: gold boug

and in London, 2486L.; gold bought, 424L. 2910L; profilt, 740L. In addition to the above account of 2486L, the sum of 868L has been expended on extraneous working a superior of the sum of 868L has been expended on extraneous accompanied by the accounts for the month of November, which show: 109 tons of ore produced 50 czs. of gold, or an average of 9 1.5th dwts. per tun; cost at the mines and at Meddlin, 345L 17s.; value of the gold, 150L; loss, 195L 17s. In addition to the above cost, 44L 15s. has been spent on capital account. Mr. White reports that all but those points which could be worked at a profit have been stopped until the result of the apolication to the shareholders was known, otherwise the mines were looking well.

CAPE COPPER.—The mine reports are not received. The returns for December are—0oklep, 1075 tons of 30 per cent.; Spectakel, 60 tons of 34 per cent. Arrival at Swansea—the San Jose. Sales of ore during January—750 tons at 13s. 8d., 600 tons at 14s., 150 tons at 14s. 3d., and 65 tons at 15s. per unit; and for February delivery 600 tons at 14s. 3d., and 65 tons at 15s. per unit; and for February delivery 600 tons at 14s. 3d., and 65 tons at 15s. per unit; and for February delivery 600 tons at 14s. 3d., and 65 tons at 15s. per unit; and for report of the state of th of quartz 3½ ft. wide, with rich pwrites, and is opening out good ground. The 33 end is in easy ground, but unproductive at present.—No. 5 Lode: The 55 end, driving north, produces 15 tons per fathom, yields 10 dwts, per ton, and is again opened out in in a large lode of massive quartz. The 65 end, driving south on the west branch, shows smallstrings of quartz, only very contorted, and enclosed in hard rock—suspended for the time. The 65 end, driving south on the main point of the lode, produces 4 tons per fathom, yields 10 dwts, per ton, and is resumed with a view to push on communication with the 33; the lode is promising, and likely to improve. The 33 end, driving north, is resumed to make communication with the 65; the lode is sterile at present. The cold and frost continue to be most severe, being unprecedented in this respect as regards duration, and all surface work is being carried on with the greatest difficulty in consequence. The water also has much fallen off, and fears are entertained of having to stop some of the machinery until a thaw sets in. The har gold retorted for January is 194 ozs. 18 dwts. 16 grs., produced from 152-787 metric tons of ore, showing a yield of 1 oz. 5 dwts. 12 grs. per ton.

District of Val Toppa: The lode in the Zero level end south, on the caunter lode, has stiff schiat only, with strings of quartz; suspended for the present. The lode in the intermediate, under Zero south, on Marmo Rosso, produces 8 tons per fathom, vields 8 dwts, per ton, and shows massive quartz all over the front, rising with din of ground. The intermediate, under end south, on west lode, is in close schiat rock, without much sizus of lode. The lode in No. 1 level end south-west lode, produces 16 tons per fathom, worth 7 dwts, per ton, and seems splitting into two branches; but the rock between is impregnated with ore. The lode in No. 2 level end south, on west or great quartz lode, has much lamininted quarts, with a leader on east side, giving saving work only. The end south in No. 3 level, on west or

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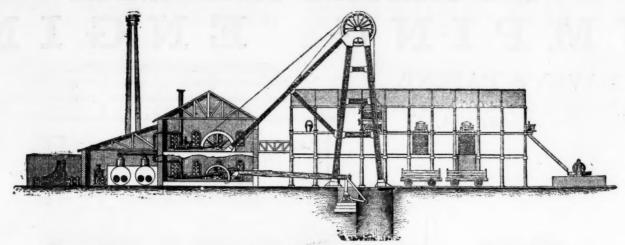
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AUSTRALIAN SHARES.

PORT PHILLIP AND COLONIAL (Gold).—The directors have receive wing advices, dated Dec. 33:—Total quantity of quartz crushed on beanies' and tributers' account for the month ending Dec. 3. 4476 tons; betained, 1185 cas. 9 dws. 12 grs. Receipts, including 1364. botained uters, 25964, 10s.; payments, including 3831, paid for firewood, 2044.

buters, 2596. 10s.; pawments. including 383. paid for fivewood, 264. 5s. his profit, 552. 4s. 11d., which added to belance brought forward from last mode an available balance of 2142. 10s. 2d. The amount divided between the companies was 900.; the Port Phillip Company's proportion being 585. The companies was 900.; the Port Phillip Company's proportion being 585. — Telegram, dated Melbourne, Feb. 9: Month ending Jan. 2s.—Remittane, 63. VICTORRA (LONDON) MINING COMPANY.—The directors have regired advices, dated Dec. 23, of which the following is an abstract:—Total quantity advices, dated Dec. 23, of which the following is an abstract:—Total quantity advices, dated Dec. 23, of which the following is an abstract:—Total quantity per ton. Profit, 1381. 12s. 6d. Remittance, 2251. being the amount of a s. divended declared by the South Clunes Company.

ENGLISH AUSTRALIAN.—Mr. Mark Pollard writes, under date Dec. 21. Per 420 ft. level has been extended 28 ft. during the month; total distance has shaft 699 ft.; this end has improved during the month, there being better gould and a little quartz; we have not seen any gold in them yet. In the 20ft, s. have crossed 350 tons of quarts during the month, there being better gould and a little quartz; we have not seen any gold in them yet. In the 20ft, s. have crossed 350 tons of quarts during the month; result, 64 oss. 18 dws. r. torted gold. The south cross-cut extended west 16 ft., much improved, quaff of ft. thick, carrying gold which I think payable; this cross-cut is about 61, north from boundary. The new Era Company are working large blocks of fest about 64 ft. west of our present workings; this stone is a continuation of block in our cross-cut, and we may expect to get the same as we drive with 50. It is some as a continuation of the control through having better air to work the stone from No. 1 file, with north end the quarts is much the same as last month; we have a will be enabled through having better air to work the stone from No. 1 file, with nothing down the new



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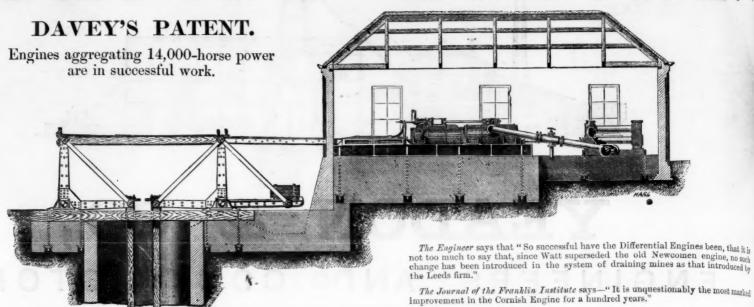
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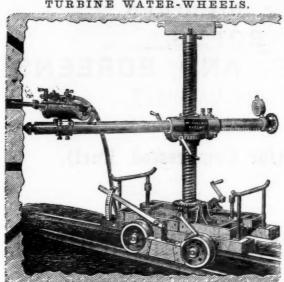
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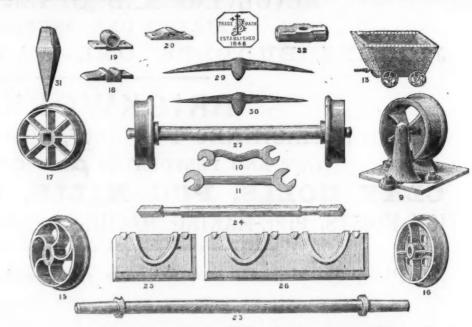
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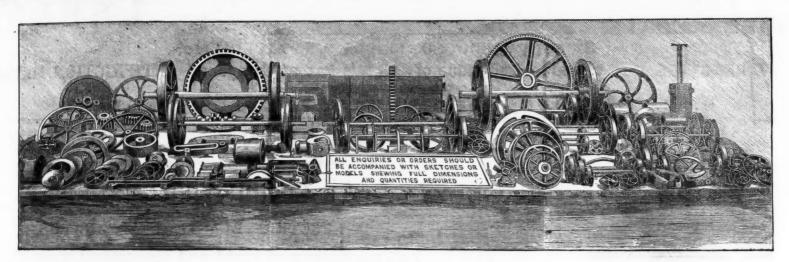
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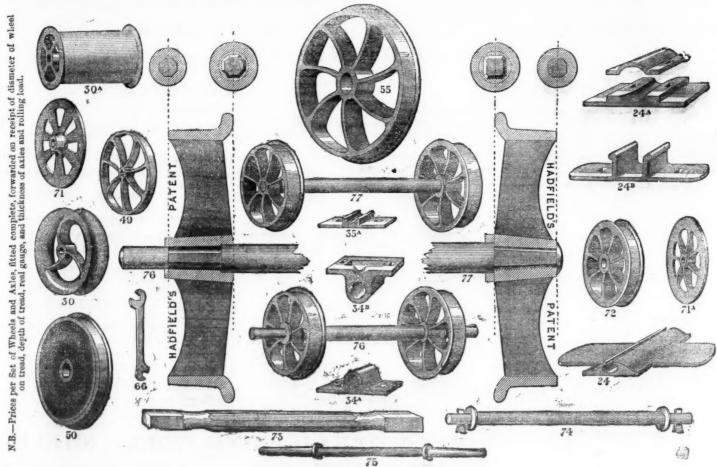
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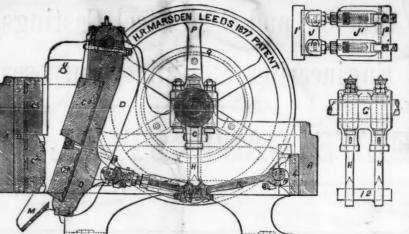
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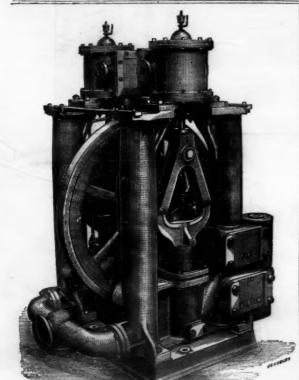
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